

April, 1880.

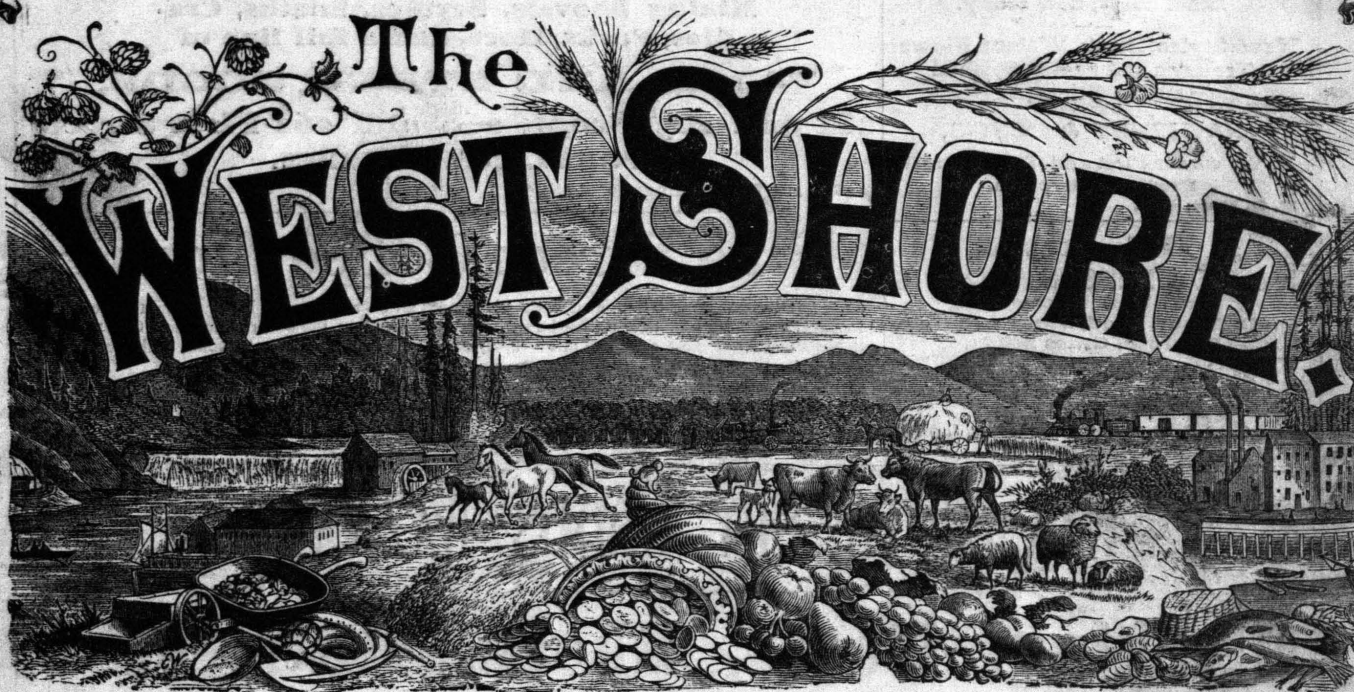
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THE WEST SHORE.

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THE OREGON INSANE ASYLUM.

Gigantic strides have of late been made towards the more perfect and scientific treatment of that part of our population which are usually designated as insane. Instead of the dark cell, the inhuman straight-jacket, and the savage keeper, we now have skillful physicians, kind and considerate nurses, pleasure grounds, and quiet and peaceful asylums where the mortal afflicted with a "mind diseased" can forget his mania, and if it lies in human agency, be restored to his natural condition of mind and body. The Oregon Insane Asylum, located in one of the most healthy and desirable spots adjoining East Portland, is, perhaps, the leading institution in the West. The treatment, as pursued by Dr.

tion and are very attractive. As fresh and bright as everything is on the outside, the inside of the building are more so. The rooms are plainly but neatly furnished, and are kept well aired and ventilated. The halls are remarkably clean and cheerful; and the kitchen, dining-halls and other departments are superior in their finish and completeness to anything on the Pacific Coast. There is a homelike air of comfort and convenience about everything that is, indeed, attractive; and the satisfied look that many of the patients wear, proves that the excellent and studied surroundings have their proper effect on them. The buildings—or to be more correct, the Asylum—is divided into seven wards, each being under the charge of its own set of officers, and all of them under the general supervision of Dr. Hawthorne. Everything is reduced to a system; there is no clashing or confusion, and though the buildings cover five acres, not a mishap or accident can oc-

cur. The water used in Dr. Hawthorne's establishment is the purest and best in the country. It is supplied from a never-failing spring which runs 750,000 gallons every twenty-four hours. The water is conducted to the building by means of the best quality of pipe, and is accordingly as pure and fresh as when it first bubbled from the earth. Though the buildings are of wood, yet are they made almost fire-proof by the precautions taken to avert and extinguish fires. Each ward has two Babcock Fire Extinguishers, besides these, an immense tank is placed on one of the buildings which is always kept full. The tank has a capacity of 10,000 gallons, and has hose attached to it which will enable the attendants to throw a stream of water with a 50-foot pressure on the most isolated parts of the buildings should necessity require it. Attached to the tank is a steam pump which can fill it with water as fast as it is exhausted. The Institution has boilers, engines, and all the paraphernalia incident upon



THE OREGON INSANE ASYLUM—EAST PORTLAND.

Hawthorne, is a most excellent and happy one. The buildings are unexcelled. All the comforts and conveniences that modern science and discovery have added to the outfit—if we may use the term—of the doctor, are there; and nothing that experience and humanity can add are absent. The Asylum is located in a beautiful spot, and is surrounded by tall and majestic firs and the "everlasting cedar." The scenery is magnificent. Mt. Hood, St. Helens, and the venerable tops of the Cascades can be seen on clear days, while the out-spreading valley of the Willamette is a source of never ending delight and pleasure to those of the inmates who have a taste for the beautiful in nature. The buildings are large, comfortable, well arranged and tasteful. The grounds surrounding them are kept in a high state of cultiva-

tion in any of them but that the Doctor is immediately aware of it and remedies it himself.

In addition to the order, completeness and finish noticeable in all departments and all things, there is a magnificent Exercise Park at the rear of the buildings. This is an institution by itself, and it is probable that such a Park as this is not possessed by any other Insane Asylum in the United States. In the grounds surrounding the entire lot of buildings there are eighty-one acres of land, all put under a high and successful state of cultivation. Besides this, there are 103 acres attached to the Institution and owned by it, also under cultivation, making in all 184 acres of cultivated land. This year they have planted thirty acres of potatoes, ten acres of other vegetables, and have six acres of bearing orchard. The Institution not only does its own farming, but also makes its own butter and supplies its own table with all articles in the dairy line. To do this, twenty-five milch cows are required.

such an immense establishment.

There are at present 270 patients under Dr. Hawthorne's care—200 males and 70 females. The State sends its insane here; a contract having been made with the Dr. by which this is effected. Although the expenses of running such an establishment must necessarily be large, yet does the Dr. take each patient under his care for the small sum of \$5 per week, this includes board, clothing, medicine, nursing, attendance, wine, etc., and in case of death, burial. The Institution has been under the successful management of Dr. Hawthorne for a period of eighteen years. Up to the present time, over \$80,000 have been expended by him on buildings alone.

The staff of the Institution consists of Dr. J. C. Hawthorne, proprietor and superintendent—Drs. G. E. Nottage and S. E. Josephi, assistant physicians—John Kenworthy, steward—Mrs. M. S. Kenworthy, matron, with a full corps of attendants.

COMMERCIAL FACILITIES.

Our enemies, even, being judges, the commercial facilities of Oregon, and the Territory of Washington, are second to none on the globe. Let any one take a late map of the North Pacific Coast, and note, carefully, the navigable water courses, from Rogue river valley to the Straits of Fuca, extending, as some of them do, hundreds of miles into the interior, and he cannot help being forcibly struck by the truthfulness of the above assertion.

To consider the subject negatively, for a few moments, let the question be asked, what would have been the condition of the great western interior of Oregon, to-day, had there been no such thing as the Willamette river, with its hundreds of tributaries ramifying as many smiling valleys and draining thirty thousand square miles of rich and productive territory? What would have been Eastern Oregon and Washington, had not the Great Spirit, as the Indians say, broken up the everlasting masonry of the Cascades, and opened a grand passage-way for the pent-up waters that now come down to old ocean through the river bed of the Columbia? And what if the Strait of Fuca had only been an estuary or broad arm of the sea, wholly devoid of that magnificent extension known as Puget Sound, and without which Western Washington would, to-day, have been an impenetrable and unexplored wilderness? These, indeed, are leading questions, and exhibit to us, in the best possible light, the wholly unexcelled and almost unequaled facilities for commercial enterprise and prosperity possessed by the people of this our Northwestern domain and frontier. Many of the inconsiderable streams put down as "rivers" on the map of California, Nevada, and several of the Territories, are little better than so many dry river-beds during the greater part of the summer months. Not so, however, with the snow-fed streams that empty from every point of the compass into the Columbia river and Puget Sound. As if the Coast Range and Cascade mountains were not enough to supply our magnificent river systems, the eternal glaciers of Jefferson, Hood, Adams, St. Helens, Olympus, Rainier and Baker, are destined to remain as grand and inexhaustible reserves while God, in His providence, shall please to

prolong the sojournment of man upon the globe.

"Take the wings

Of morning and the Barcan desert pierce,
Or, lose thyself in the continuous woods
Where rolls the Oregon, and hears no sound,
Save its own dashings."

What the Columbia was seventy years ago, when Bryant penned *Thanatopsis*, so is it, save in name, to-day. The Philadelphia *New Northwest* may persist in calling it the "grave-yard of ships," other jealous parties, with more zeal than truth or discretion, may apply to it disreputable and libelous epithets, but, with its ten thousand sources, it will continue to drain its three hundred thousand square miles of territory, and carry upon its bosom to the great patriarch of oceans its infinitude of shipping, bound to every seaport known to the commerce of civilization. During the twenty years that the lamented Captain Francis Connor has commanded sea-going steamships plying between San Francisco and Portland, his first Columbia river casualty is yet to be recorded. Favorable as this showing appears to be, hundreds of other shipmasters of various grades might boast of a similarly prosperous career. So much, then, for the largest and grandest river that empties from the Western Hemisphere into the Pacific ocean.

And now, what shall we say of Puget Sound and its wonderful ramifications? Argus had a hundred eyes, and Briareus a hundred arms, while other mythological celebrities had a plurality of heads. But, unlike, and superior to them all, this admirable sheet of water may be said to be all eyes and all arms, and with so many heads projecting into the forest-fringed land that our Government's Coast Survey experts have been for years striving to determine which one of its countless inlets should be considered, *par excellence*, its ultimate and principal source. Landlocked, and protected from oceanic storms and currents, its is verily the paradise of fine steamers, and the smaller sailing craft so essential to the best interests of our growing inland commerce, to say nothing of the magnificent forest and mountain scenery within which, throughout its whole extent, it is so happily ensconced.

But we trust that enough has been said in this connection, to convince business men and the commercial world generally, that this part of the

Pacific Coast offers fair, if not superior inducements to those capitalists, at the East and elsewhere, who may be looking for desirable fields of enterprise.

In treating of this subject, it has been our special aim to carefully avoid all mooted questions of local character and tendency. Provincial rivalries always did, and, probably, always will, exist in every land. It comes not within the province of a journalist to settle and reconcile these points, and hence we have endeavored to confine ourselves to candid and liberal views in regard to the various phases of this most interesting topic.

SOME INTERESTING COMPARISONS.

BY L. P. VENEN.

In treating of the mammoth trees of California (*Sequoia Gigantea*), Mr. Franklin B. Hough, in his official report upon the Forestry of the United States, wisely remarks: "These trees have attracted widely the public interest, rather on account of their enormous dimensions than their commercial importance." Hence, it will be seen, upon careful investigation, that it is an egregious error for incoming settlers from the Atlantic States to base their estimates of California's timber resources upon the wide-spread reputation of the so-called mammoth trees. The *Sequoia Gigantea* producing area of that State consists, mainly, of a few narrow and isolated belts along the western slope of the Sierra Nevada range, between about thirty-six and thirty-eight degrees of latitude. Comparing these trees with the fir, cedar and spruce of this, our Northwestern Coast, we come in possession of some curious and interesting results; especially interesting because they are deduced from actual calculation. It is a fact well known among mill men and lumber dealers, that, beyond a convenient size, the girth of a tree tends rather to its disadvantage than value and profit. On the other hand, however, long, straight and clear timber will ever be held in great estimation by producers, dealers and consumers.

As objects of curiosity and admiration in the vegetable world, the big trees of California are sufficiently grand and glorious to merit all that has ever been said and written about them, but let us hear what actual measurement and calculation have to say as to their practical

utility in the various industries where timber and lumber become important and indispensable factors.

In the "Yo Semite Book," a work prepared under the auspices of the California State Geologist, and published by order of the Legislature, there is presented a "Table of the Measurements of Height and Circumference of Trees in the Calaveras Grove." The girth of these trees is taken at a distance of six feet from the ground. The table gives the name and measurement of thirty-one trees, the average height of which, in round numbers, is two hundred and sixty-nine feet, and the average circumference forty-one feet; answering to an average diameter of thirteen feet. These figures being assumed as correct, or approximately so, it turns out that the *mean ratio* between diameter and height will range from twenty to twenty-one. Now it is a patent fact that the greater this ratio between diameter and height, the more valuable is the tree for lumbering purposes. The reason of this is clearly apparent to every mechanic, and the general reader stands in no need of an explanation from us. Extreme cases, of course, either way, will cause a wide deviation from the results above stated. For example, the specimen which the earlier tourists christened "Keystone State," standing in the same grove, is said to be the tallest individual of vegetable growth on the American continent, so far, at least, as discovery has made known. This tree is three hundred and twenty-five feet in height, and fourteen feet in diameter above the "swell" of the roots, giving a ratio of twenty-three. The "General Jackson," three hundred and nineteen feet in height and twelve feet in diameter, gives a ratio of twenty-six. The "Mother of the Forest," three hundred and fifteen feet in height and twenty-one feet in diameter, gives a ratio of only fifteen; while the "Dr. Kane," two hundred and seventy-one feet in height and sixteen feet in diameter, affords a corresponding ratio so low as eleven.

Let us see now what is true of some of our own monarchs of the forest. We have, with our own hands, carefully measured the heights and diameters of a great many Washington Territory firs. Many of these beautiful specimens stand three hundred feet high, their dark green and densely

matted crowns supported by taper shafts of no more than from six to eight feet in diameter; thus, far exceeding the famous *Sequoia Gigantea* in point of lightness and symmetry of outline. In these investigations, we have discarded all trees below two hundred feet in height; the greater number of those measured might, in fact, be included between two hundred and twenty-five and three hundred feet. From some dozen or more prostrate and standing trees, measured in various parts of the valley of Puget Sound, we have deduced an average height of two hundred and forty feet, with a mean diameter of seven feet. Here, then, are the data for obtaining a fraction over thirty-four as a mean ratio between diameter and height. But lumbermen do not like to attack overgrown timber of any sort; and hence, we think it is safe to conclude that the great majority of firs utilized for lumbering purposes, in Washington Territory, will furnish ratios all the way from thirty to forty, while in extreme cases they run as high as fifty. Let it be understood that the mean height of two hundred and forty feet, announced above, does not relate to the *conifera* as they are met with indiscriminately in our forests, but only such specimens as we have personally singled out and measured; and in all cases, we selected the tallest and most perfect trees.

It may not be amiss to explain, here, to the uninitiated, what we mean by the term "ratio" as used in this article. In a mathematical sense, ratio is the quotient arising from dividing one quantity by another. Thus, the ratio between five and ten, is expressed by dividing ten by five, giving two as the required ratio. Now suppose we measure a fir and find it to be two hundred and sixteen feet high and six feet in diameter. Dividing the greater dimensions by the less, we have a quotient of thirty-six; this quotient, then, is the ratio in question. Without further ado, it will be readily seen why it is that a large ratio implies a correspondingly large commercial value; since it is plain that a greater number of "cuts" of a given length and availability can be taken from a long, taper trunk, than from one of a thick, stumpy growth.

In fact, the best quality of rough and dressed lumber shipped from Oregon and Puget Sound mills to home and

foreign markets, is made from logs which are less than five feet in diameter.

What has been said of the *Sequoia Gigantea*, of California, might be said, in many respects, of the noted redwoods of that State, the *Sequoia Sempervirens*. In the same forest belt, thousands of these trees may be found from seven to twelve feet in diameter. And hence, on the score of convenience and ultimate profit, the smaller sizes alone are selected and felled for legitimate lumbering purposes.

We would not, for a moment, doubt that trees of the most gigantic growth in all lands have their respective uses. Nay, it were dishonoring the Creator of all things to think and speak otherwise. But we think quite enough has been said to show that the timber of our own immediate part of the Pacific Coast is pre-eminently adapted to all the varied wants of builders and wood-working mechanics.

As has been stated, the measurements of the girth and altitude of trees along this part of the Coast, have been made under our immediate supervision. While we have seen much of the magnificence of forest growth in the mountain fastnesses of Eastern California, we have depended wholly upon official reports for the details of measurement as to the individual specimens referred to in this article.

A certain young woman named Hanna,
Slipped down on a piece of banana;
She shrieked and oh my'd!
And more stars she spied
Than belonged to the star-spangled bannah.

A gentleman sprang to assist her,
And picked up her muff and wristler;
"Did you fall, ma'am?" he asked her:
"Do you think," she replied,
"I sat down for the fun of it, mister?"

—[New York World.

There was a young man in Alaska
Who thought he would like to ask a
Young woman to wed;
In the face he grew red,
He stammered and threw himself down at her feet,
And the next thing he knew, he was out in the street,
And a six-by-nine boot tore a hole in the seat
Of the pants of the man in Alaska.

"Blessed are the peacemakers," said the small boy when he dropped a costly porcelain ornament.

"If I punish you," said mamma to her little girl, "you don't suppose I do so for my pleasure, do you?" "Then whose pleasure is it for, mamma?"

FORT DALLES, where the Government expended \$1,000,000 from 1860 to 1862, is now a desolate ruin. We recently visited the place, and found everything going to decay and destruction. A number of squatters have taken possession of it, and unless looked after, not a shingle will be left to mark the expenditure of that million of dollars. The buildings are being torn down and used by these marauders for

The population of Spokane Falls is about four hundred, and is rapidly increasing. Lots are worth from \$270 to \$800, according to location. The town and surrounding country is attracting much attention at present, many visitors are passing to and fro looking for business points, and if we mistake not, Spokane Falls will be one of the busiest parts of Eastern Washington during the coming summer.

THE REEDVILLE FARM.

This magnificent property, owned jointly by Messrs. S. G. Reed and W. S. Ladd, of this city, is, without a doubt, one of the very finest farms on the continent, and fully illustrates what can be done in Oregon in the farming line. Our engraving gives a very good idea of its general appearance. It consists of 840 acres of the most fertile rolling land of the garden spot of Oregon. Every acre of it, not absolutely necessary for grazing purposes, has been brought to the very highest state of cultivation. With improvements and stock, it is valued at about \$75,000. It is located in Washington county, twelve miles west of Portland. The Western Oregon Railroad runs through the place, dividing it in nearly two equal parts. The village of Reedville takes its name from the farm. On a clear spring day, such a one as when this article is penned, the view in nearly every direction is indescribably grand. The buildings, barns, etc., are constructed with regard to safety and comfort. Every building is detached; a fire occurring in one would not necessarily endanger any other. The "Round House," shown in the upper right hand corner of the engraving, nearly faces the dwelling, and is on the opposite side of the railroad track, about five hundred feet distant. It is used to exercise the stock in when the weather makes outdoor exercise disagreeable. It furnishes a track of 225 feet. A splendid timing half-mile track, shown in the left of the engraving, is used during the summer months. The stock is in charge of L. B. Lindsey, Esq., and is of the very best and most profitable. The trotting stud comprises Hambletonian, Membrano Chief and Patchen blood, whilst the Clydesdale represents the working horse. The cattle are all Short-horns, whilst the pigs are represented by the Berkshire. Of sheep we find two varieties, the Cotswold and Leicester. The principal productions of the soil are English rye grass, wheat and oats. Aside from its money value, the fortunate owners have every reason to feel proud of this magnificent farm, which we consider one of the finest in the United States.



GRANDMOTHER'S BIRTH-DAY.

firewood, the windows are disappearing, and even the graves of the departed are not respected. The neat little fences that once surrounded them are there no more. Even the wooden tablets marking the resting-places of the departed are ruthlessly destroyed by these human hyenas.

An editor can collect his senses easier than he can his dollars.

The Californian, a thoroughly Western Magazine, is published at San Francisco at \$3 per annum, and should be in the house of every lover of spicy, clean literature. It is brim full of good things; printed on good paper, with clear type, and is a publication that every resident of the Pacific Coast may be justly proud of.

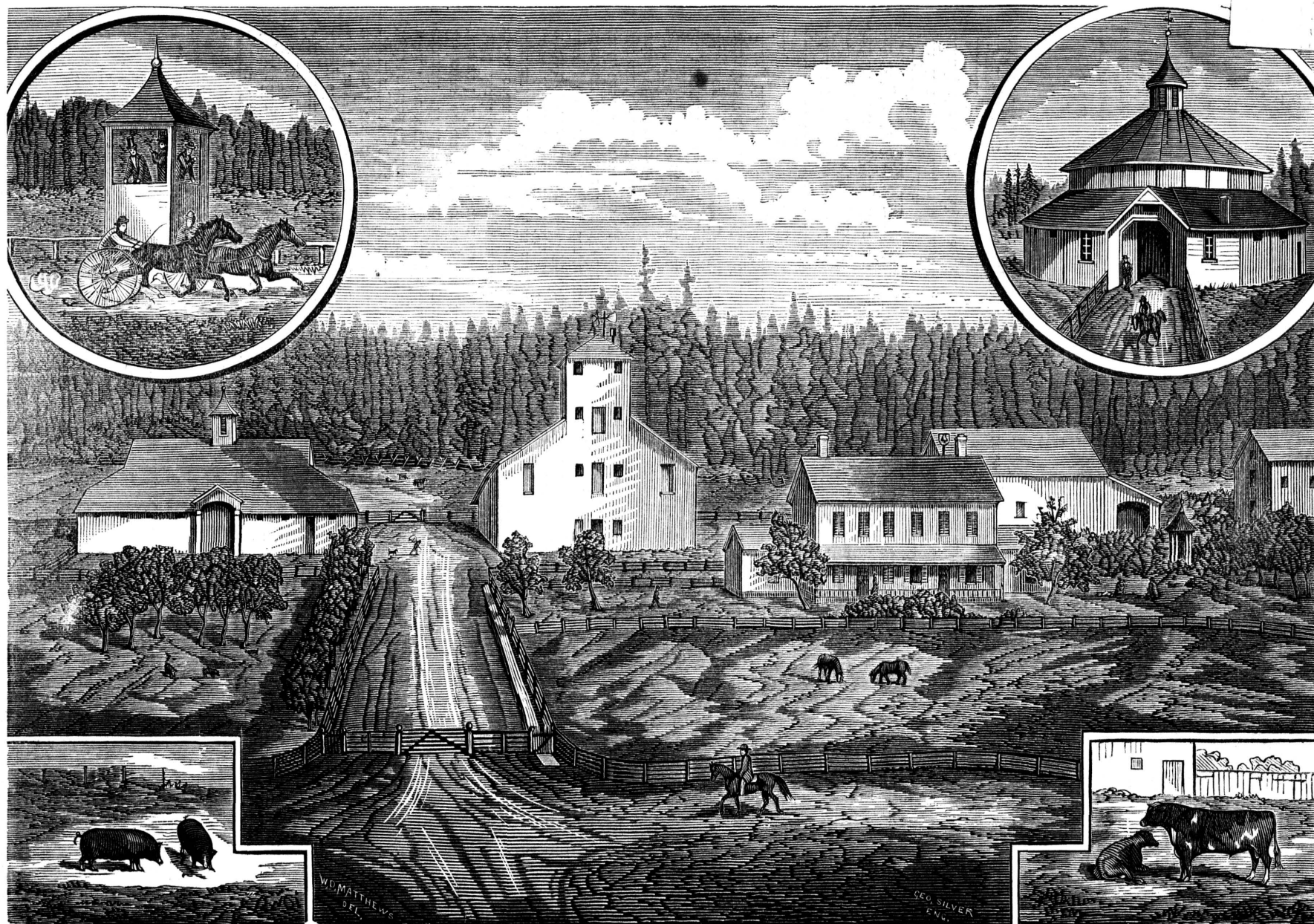
Always open to conviction,—a thief.

"The men of to-day are too high-strung," says an exchange. Some of t strung high enough.

April, 1880.

THE WEST SHORE.

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FARM OF S. G. REED AND W. S. LADD, REEDVILLE, WASHINGTON COUN TY, OREGON.—FROM SKETCHES BY OUR SPECIAL ARTIST.

PERMANENT HOMES AND FIXED POPULATIONS AT THE CENTERS OF THE MANUFACTURING INDUSTRIES OF THE PACIFIC NORTHWEST.

BY REV. G. H. ATKINSON.

THE MATERIALS FOR MANUFACTURES.

It is plain that man must have materials to work upon as well as tools to work with. Iron workers must have iron, and furnaces must have the metallic ore beds not far off.

The *Scientific American* of March 13th, 1880, says:

"The confidence of dealers, based on the guarantees they have in hand of the ability of consumers to purchase liberally, may, without anything like enthusiasm, be relied upon to maintain the energy and give lengthened vitality to the period of business enterprise upon which we seem to have so auspiciously entered. And in no one of the general divisions of business activity does this renewed life seem to run so high or hold forth such large promise as in those connected with metal working. Iron and steel especially, in all the various forms through which they are made to serve the purposes of man, are now so eagerly sought for, notwithstanding prices have advanced 100 per cent., that our furnaces and foundries and machine shops can hardly begin to satisfy the demand."

This is good authority. It means the utmost use of machinery and manual labor in our present iron and steel manufactories and of the furnaces among the mines now open. It means, also, more extensive mining in the older States. It means new enterprises of the same sort, wherever the ores and the means of smelting them can be found near enough together to use them and freight the iron to market.

Three things must be had for the iron furnace; first, the metallic ore; second, the coal; third, the lime-bed. Charcoal brings out the best iron, but it is usually too costly in competition with the native coal beds of anthracite and coking coal. In one way this cost can perhaps be reduced to a minimum. The lumber mills of Puget Sound burn up thousands of cords of slabs and waste lumber every week to get rid of it. Let these slabs and refuse be stacked, covered and burned into charcoal and it can be transported to the furnaces more cheaply than coke can be furnished and it will produce as good or better iron. For example: The Puget Mill Company at Port Gamble can run their refuse slabs and

scantling on their elevated tramway to the bluff along the beach, make twenty or more coal pits in the hill side and keep them in constant operation. The charcoal can be conveyed to barges through chutes and towed to the furnaces and then elevated to high sheds by endless chain buckets, thence borne when needed into the top of the blast chimney. By this means the rehandling would be saved and the cost be merely a fraction of that by the usual method of chopping and piling cordwood to make charcoal. It would probably match anthracite coal in economy, even if such a vein were found in the vicinity. Grant, for the sake of argument, that good and abundant iron ore, lime and charcoal can be had at any point, or on any shore, or island of Puget's Sound, and you have the conditions of success in the production of iron and of its manufacture for all the demands of trade at home and commerce abroad.

Iron ore is said to be a product of the bog or swamp vegetation of the carboniferous period which produced the coal measures. Its beds, like those of coal, usually show marks of fire, probably volcanic. Its beds may be expected to appear in the vicinity of coal beds. Such are the facts in Pennsylvania and Ohio. Such are the facts coming to light among the islands and along the shores of Puget's Sound. The more recent bog ores are spread out over the flats, like the Puyallup valley, and those near Port Townsend. The more compact veins are said to be found on Texada Island north of the line 49 deg. and on Guemas, south of it. They will no doubt be found in the hills near the Carbon river coal beds in Pierce county, and in the hills beyond Cedar valley in King or Snohomish county and on Vancouver's Island. The older and stronger coals are already found in these localities. The beds of ore are already signaled by outcroppings.—Choice lime abounds on San Juan and Orcas Islands. The signs point to an early and large increase of these productive industries.

Lumber abounds on every side.—Grand forests press to the water's edge. Schools of fish swarm in bays, straits and open seas. Valleys and plains and bench lands and hills produce vegetables, fruits and cereals in luxuriant abundance. These woodlands of ma-

jestic firs, spruce, cedar, pine, maple, cotton-wood and ash along river, lake and Sound, and far up the mountains to the snow line, reveal a strength of soil and an evenness of climate favorable to the growth of materials and of food for the needs of a large variety of industries and a dense population.

The signs are that the Puget's Sound basin will be in a measure the Pennsylvania of the Pacific Northwest.—Hundreds of thousands of tons of coal are now annually exported through De Fuca Straits to the south coast markets for domestic and steam purposes. Hundreds of millions of feet of lumber and spars are annually exported thence for markets on the Pacific, southward to Chili, southwestward throughout Australasia, and westward to the ports of China and Japan. Let a tithe of the value of these yearly exports from the forests, and soils, and mineral beds be spent in developing other resources in that region, and the future will show thriving industries, and prosperous communities.

The same classes of facts hold along the lower basin of the Columbia river and its affluents. Lumber abounds. Iron ores prove rich. Coal veins have been found which promise well. The home industries have begun vigorously in many of the towns along the Willamette river. The materials are easily obtained and transported and sent abroad in all directions to quick markets. Manufacturers of wood and iron, of brass and tin, of brick and stone, of crocks and earthen ware, of woollen and leather goods, and of flour for shipment as well as for home use, have already won a name and place among dealers. Every year the communities of Oregon and Washington are becoming more independent of imports.—Dairies are established and worked by improved methods and with profit.—Farm products are in greater variety and quantity. Flax of choice fibre is raised in all parts of Oregon and Washington, and flax-seed is raised in large quantities for oil. A few farmers are about to test the problem of beet sugar. Mines of gold and silver have become a specialty of experts and capitalists. The production of wheat has been stimulated by our choice climate and soil and unfailing harvests, and by quick and profitable markets abroad. The methods of prompt and cheap trans-

portation have been in process of solution by the industry, skill and enterprise of our own citizens. Lands are cheap and inviting for homes and for larger enterprises. Forests of fir, spruce, cedar, cotton-wood, ash, maple and oak, need only the hand and the brain of larger numbers of intelligent artisans to mould them into utensils and vehicles, dwellings and warehouses, roads and bridges, ships and cargoes for our own and others wants. Resources, like these now open to us, are the factors of fortune in the older States and in foreign countries. They invite settlers to secure and work out like fruits here.

THE RELATIVE PROFIT OF SUCH INDUSTRIES.

It is known that labor puts the chief value upon everything we use and wear. It is not the amount of materials which the artisans of Old or New England work up, if wood, or iron, wool or cotton, or silk, but the amount of work and skill which they apply to elaborate those materials into engines and useful merchandise. The wool in a suit of clothes costs say one-tenth, and the manufacture and sale costs nine-tenths of what you pay for the whole suit. If you raise and send off only the wool, and buy and bring back the clothes, you must make your profit upon one-tenth of the value of the goods, while other persons make their profit on nine-tenths of the goods. Suppose you furnish the work for a stock of \$10,000 worth of goods in a store, your profit must be \$1,000. Commissions and transportation and storage may be \$3,000 or \$4,000 which would leave \$5,000 or \$6,000 for labor. Suppose that labor or manufacturing is done in another State, or in a foreign country, the \$5,000 or \$6,000 will be earned and spent there for the food, clothing, houses, schools, churches, books, papers, and all the comforts and luxuries, which every family needs, or desires. The result is that the manufacturing centres become densely populated; for the people can earn money daily for daily wants. This cash goes into circulation and pays the farmer, gardener, orchardist, florist, clothier, tailor, shoemaker, tinsmith, grocer, merchant, carpenter, printer, binder, blacksmith, watchmaker, baker, butcher, teacher, lawyer, minister, physician, druggist, oculist, banker, boatman, railroad-man, or whatever other trade

or profession is found in civil and social life. Ten dollars paid by one man to another in such a community will pass to another and so on, and thus in a few hours it will pay ten times its value. Ten dollars serve the purpose of a hundred perhaps in a single day. A thousand will in like manner pay up accounts of ten thousand, and five thousand put in circulation among workmen on Saturday night will pay \$50,000 of debts before a week passes. Such a community always has money to spend, because they can always earn it. This is the secret of the prosperity of England, Scotland and North Ireland. Glasgow, Dundee, Leeds, Sheffield, Manchester, Birmingham, Belfast and Lyons, are cities which have thriven and grown up from the fruits of labor alone. England imports the raw material at low rates, and works it up into machinery and fabrics for the markets at home and abroad. The fruit cans and fruit pastes and jellies in Glasgow are made from cargoes of fruits imported from the tropics. The cordage and sail cloth of Dundee are made from the coarse flax of Russia. The linens of Belfast are mostly made from fibre grown in other countries. The finest linen fabrics of Leeds are from Belgium flax. All these manufacturers rejoice to find a region that can raise good flax, which they can import at \$200 or \$300 per ton. They will add by labor 600 to 1,000 per cent. to the value of the raw material. With factories in full operation at home, and open, free markets abroad, they can win and absorb the wealth of the world.

What is true of wool and of woollen goods is true also of wooden and iron goods, of stone and clay, and of all manufactures. Employ a people even on small wages, and they will, if economical, prosper and become independent and rich. The gains are largely in favor of the artisans. But export raw materials, and you will soon spend your tenth in buying back the goods to which others by labor, skill, and care, have added nine-tenths.

EFFECT OF HOME INDUSTRIES UPON LOCAL VALUES.

It is population which gives value to land. The more farmers and farms, the higher land rises in market rates. Cultivation is better, products are more abundant, and in greater variety. Farm-

ing land in England, interspersed with large towns and cities, is worth from \$100 to \$500 per acre. In New England, farms, though of worn, thin soil, are held high, and were it not for cheap Western lands, prices would steadily gain with the growth of home industries. The same is true in New York, Pennsylvania, and Ohio. Lands in the Upper Mississippi valley advance in price with the increase of manufactures. The reason is plain. The producers of foods, of the lumber, and metals, and clays, and stone, and other materials for labor, find a quick and profitable home market. This keeps money in circulation all the year. Every worker and producer shares in the payments, and becomes a good purchaser, and thus real estate advances steadily. This prosperity brings more of the comforts, and refinements, and luxuries, and independence of life, to every industrious and prudent family. Contrast this with the sale and export of raw materials to be worked into fabrics and merchandise by foreign artisans, while we pay out all the income of our fields, pastures, forests, mines and fisheries year after year to buy our clothing, furniture, utensils, farming implements, machinery, and many articles of food, and all of our luxuries. It is not strange that we have hardly enough left to pay taxes. It is not strange that farms are mortgaged for foreign gold. It is not strange that manufacturing countries like England, France and Germany, who have to buy 200,000,000 of bushels of our wheat on account of their poor harvests are yet able to pay us in goods, and to win back their gold, and thus turn the tables upon us who are mostly producers of the raw materials. The New England and Middle States have become able to compete with foreign manufacturers in a few lines of goods, and thus save their money at home, or win it back, but the Western farmer, and especially the farmers of the Pacific Northwest, and all the people with them, are held at the mercy of the foreign manufacturer, and the money lenders. Merchants perform the exchange and get their commissions, and win or lose just as the markets turn. The chief facts are that the manufacturer puts from fifty to sixty per cent. of the value on all goods that we buy, or use by his labor and skill, upon them. In some cases he

puts seventy or eighty per cent. of the value upon merchandise by his skill and labor. The materials of a watch are not worth twenty per cent. of its market value. All the rest is work—commission, which is of the nature of work.

THE MANUFACTURER CONTROLS THE BUSINESS OF THE WORLD.

After Napoleon's mighty struggle and victory over France, Italy, Austria and Germany, he was conquered by the spindles, and looms, and work-shops of England. These same improved work-shops, spindles and looms, have conquered, and they now hold under their royal banner 250,000,000 people, or one-fourth of the population of our globe, and yet the census of Great Britain shows hardly 35,000,000, or less than one thirty-fourth of the world's population. The work-shops, spindles and looms of New England, dictate very largely the business of the United States. When the panic came and continued six years, and manufactories and shops closed or run only on half time, the workmen and women and artisans drew on their deposits in the savings banks and endured the loss of work without starvation. When business revived they sprang to their looms and lathes and shops and yards and set every wheel in motion and turned the flow of prosperity first and strongest into their own channels.

It is an axiom that the strongest force wins. Sixty or seventy per cent. of labor is always stronger than thirty or forty per cent. of labor and raw material. If England or New England wields this sixty or seventy per cent. of labor, either of them will be more than a match for any or all other countries or States which merely furnish the raw material and only labor enough to collect and export it.

THIS PROBLEM MUST BE SOLVED IN THE PACIFIC NORTHWEST BY TESTING AND INCREASING OUR HOME INDUSTRIES.

Men will find here the resources to develop, as they have already begun to do in furniture manufactures, in iron manufactures, and in a few other goods. Once at work the people will collect where the work is done, where native forces of water and of steam are applied, and the largest and best supplies of materials can be collected to work upon. There will be our largest and

richest and most prosperous cities, and many of these must be west of the Cascade mountains.

THE Odd Fellows' Temple at Victoria, B. C., an engraving of which we furnish in this issue, is a handsome structure of brick, and was completed in 1879. The lower portion contains two fine stores. The Lodge room is on the second floor, and is said to be the finest on the Pacific Coast. It is sixty-three feet in length by thirty-three feet in width, and twenty-nine feet in height. It is beautifully ornamented, well ventilated and lighted, and elegantly furnished. The structure is an ornament to even so handsome a city as Victoria, and reflects great credit on the Odd Fellows of that city.

EASTERN OREGON AND WASHINGTON.

In our last issue we gave an estimate of the number of cattle which will be driven by one firm from East of the Cascades to Eastern markets. Since then we have visited Eastern Oregon, and learned that the following may be said to be about the correct number of head to be driven, and the firms who are purchasing them:

Seawright & Co.....	30,000
Lang & Ryan.....	23,800
Evans & Hewes.....	12,000
Joe Teal.....	10,000
Scribner & Co.....	8,000
Chas. Bush.....	8,000
Neal Bros.....	5,000
Quinn & Porter.....	4,000
Total.....	100,800

The average price paid for these is \$13 per head, giving a grand total of \$1,310,400, which East of the Cascades will this season receive for cattle alone. To this can be added two million of dollars more for wool and two million of dollars for wheat and other products, exclusive of precious metals, which can not be estimated as yet. Not a bad showing for so young a country.

If your son has no brains, don't send him to college. You cannot make a palace out of a shanty by putting a French roof on it.

"Why, Hans, you have the most feminine cast of countenance I have ever seen." "O, yaw," was the reply, "I know de reason for dat; mine modder was a woman."

Tommy—"What does it mean, Sissy; laying up something for a rainy day?" Sissy—"Don't know, Tommy; 'spect it means borrowing a friend's umbrella and never returning it."

THE QUAKER'S METHOD.

An inveterate drunkard once asked a Quaker whether he knew of a method whereby he could cure his dominant vice.

"Friend," answered Broadbrim, "it is as easy as keeping thine hand open."

"How is that?" said the drunkard; "every man can keep his hand open, but as to abstaining from liquor, that's quite a different thing."

"I will tell thee," quoth the Quaker; "when thee has gotten a glass of gin in thine hand, and before thou dost raise the tempting liquor to thy lips, open thine hand—and keep it open! Thee breakest the glass, but thee breakest not the laws of sobriety."

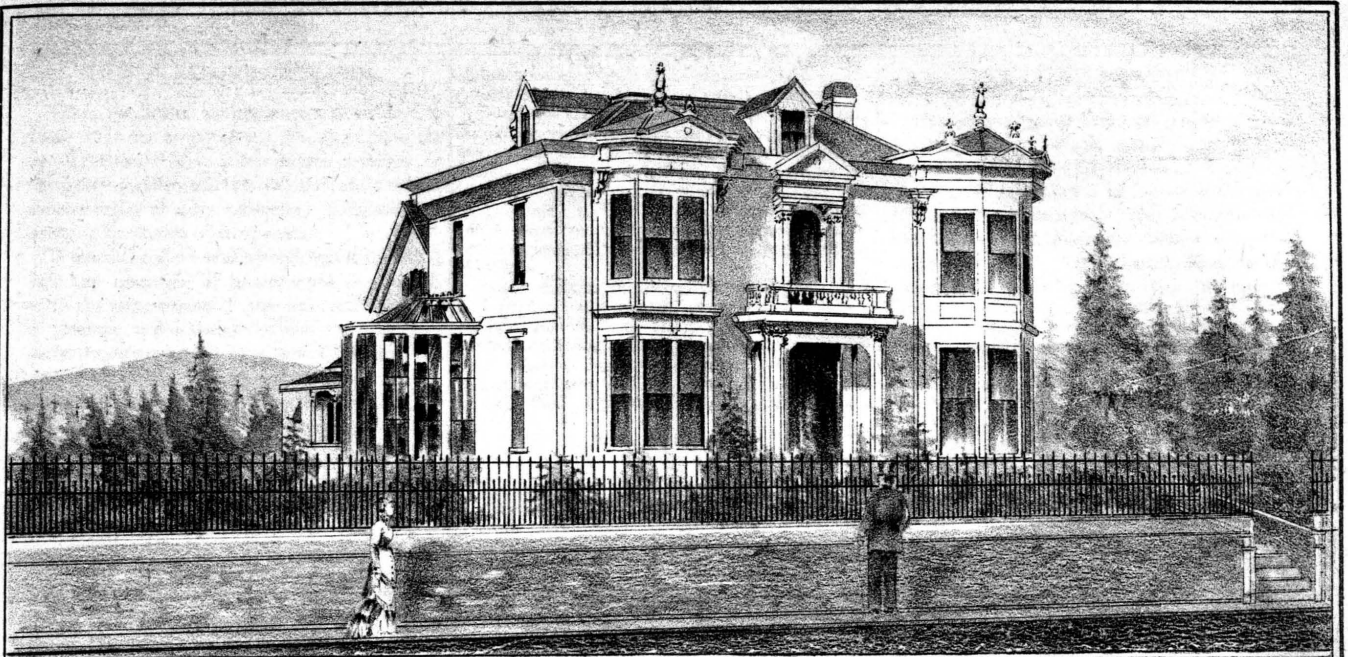
That indefatigable worker, the publisher of the WEST SHORE, Portland, announces what he calls a "mammoth number," to appear in July. Special pains will be taken to render this issue brimming full of rare attractions. Preparations are already being made for the fulfillment of this grand project, and we expect that the WEST SHORE for July, 1880, will eclipse anything of its kind ever published north of San Francisco. Original essays, poems, scientific selections, and engravings of local interest, will make up its sparkling pages. Unlike many other popular journals of the day, this periodical is just as essentially a magazine for the family circle as the general reader and savant. Mr. Samuel is the acknowledged pioneer in this field of literary work on this part of the coast, and justly deserves encouragement.—*Olympia Standard*.

The Oregon Pioneer's reunion takes place in this city, on the 15th of June. This is also the 34th anniversary of the signing of the treaty settling the boundary line between Great Britain and the United States, and which made Oregon United States territory.

THE officials at The Dalles Land Office inform us that the average of land filed on in that district is not more than one acre out of every hundred acres of surveyed land in the district. There is room yet for all who may come.

A fond mother hearing that an earthquake was coming sent her boys to the country to escape it. After a few days she received a note from the friend, saying, "For goodness sake, take your boys away, and send along the earthquake instead."

"Digby, will you take some of this butter?" "Thank you, ma'am, I belong to the temperance society—can't take anything strong," replied Digby.



RESIDENCE OF CAPT. L. M. STARR VICTORIA B.C.



ODD FELLOWS TEMPLE VICTORIA B.C.

LITH. WEST SHORE

PHOTO BY R. MAYNARD

THE PLEASURE OF LABOR.

When the fiat of omnipotence was uttered to man: "In the sweat of thy face shalt thou eat bread," there was an intermixture of mercy in the punishment by toil then decreed, and the self-consciousness of duty performed mitigated the seeming harshness of the penalty.

When the toiler has accomplished his allotted task the sensation of having done so, blended with the anticipation of peaceful rest, produces a pleasure and a delight which the idler can never experience. To have labored with an object in view, and to have accomplished the desired result, is a gratification which renders the toil less irksome and lightens the fatigue attendant upon it.

In whatever field of labor man may put forth his exertions, the satisfaction of seeing the consummation of his efforts creates a joy which amply compensates him for having labored. If he is working for recompense, the receipt of his earnings gives to him the proud feeling of independence and of self-sustaining powers. He receives the tribute for his labor as a just return for it; it is his because he has given his strength of muscle or of brain for it. The obligation was mutual between the employee and the employer. One had the means with which to purchase, the other had the labor to sell. Of the two the laborer stood upon the firmest pedestal. The riches of the one might "take to themselves wings and fly away," but the brawn of the other would always be available.

The author may have passed long years in gathering the facts or the knowledge which he transcribes on the pages of his volume; but when the task is finished and the book goes forth to be scanned by his fellow men, he feels a glow of pleasure in having awakened from their dormant slumber in his brain the ideas which shall create in his readers sensations of delight or thoughts of an elevating nature. If he has added to the general intelligence of the world; if his words have given strength to the weak; if they have nerved the wavering to steadiness of purpose; if they have dried the tear of sorrow; if they have brought into existence the cheering smile, or the kindly glance, he knows that his toil has not been in vain, and there comes to his soul a reward which is above all price when he considers the benefits he has conferred upon his race.

The artisan may strike heavy blows and tax his muscular power to its utmost extent as he forges the shaft, or tempers the tool with which to complete his work, which, when finished, he exhibits with honest pride, as its utility and excellence of design are self-evident to all. If by it he has lightened the hours of toil; if he has increased the power of production; if he has made the seasons of rest to the wearied ones longer and more frequent; if he has given to the homes of all more comfort, beauty and cheerfulness; if he has rendered life's burthens less difficult to bear, he must find a gratification in the result of his labors such as the drone could never know.

If the toiler is working for the support of his family how will his heart throb with delight as he witnesses the happiness which the expenditure of his wages brings into his home. His fare, simple though it may be, seems to him like a luxurious and sumptuous banquet, sweetened as it is by the glad satisfaction that he has added to the joy of the loved ones there. If he has brought to them pleasing apparel; if he has given them wherewith to adorn themselves; if he has found for them the long-wished-for object, even if it be but a trifle in itself; if he has brought to them the volume, the picture, or some article of utility; if he has contributed to their joy or their happiness, he finds his own

still more augmented as he receives their grateful acknowledgment for his kindly gifts.

Does not the artist, in the rich enthusiasm which pervades his soul, as the delineations of his conceptions of the beautiful are traced in brilliant hues, or cut from the Parian, experience a delight which seems to transcend all earthly bliss, and be far deeper and purer even for a brief moment, than the pampered idler could experience during the whole period of his existence.

Labor adds to the complete development of the physical and mental powers. It creates a healthy condition of the body and mind, and such a condition is always conducive to happiness. Labor does not depress; it recuperates and strengthens, and in the full flow of spirits and the flush of physical well being, there arises

THE LIBERIAN COFFEE.

The engraving on this page shows a young seedling of the Liberia coffee. Mr. William Saunders, chief of the Horticultural bureau of the department, says that the Liberian coffee proves to be more tender and to require a higher temperature for its profitable culture than the common or Arabian coffee. The Liberian plant is of a larger growth, the foliage heavier and very distinct; individual leaves measure from 10 to 12 inches in length, and from 4 to 6 inches in width—while those of the common coffee, under similar conditions of growth, measure from 5 to 6 inches in length and about 3 inches in width. The berry of the Liberian species is propor-



YOUNG PLANT OF LIBERIA COFFEE.

a pleasure and enjoyment that indolence can never bring into action.

SPOTS ON FINGER NAILS.—The white spots which appear on our finger nails are due to the variable nutrition of the nails. When the vital forces are vigorous and every part of the body is supplied with good blood, their growth is steady, and there is uniformity in color and consistency. It is a peculiarity in the growth of the nails that if a person experiences a severe attack of disease, or some strange shock to his organization, the nails will indicate it. There will be a change of color, a partial cessation of growth, and as they emerge from the skin, ridges may appear. In some remarkable cases the nails have dropped out as a consequence of illness.—*Phrenological Journal*.

tionately large, but objections are made in regard to its introduction in South America on account of the size of the plant, as being less amenable to culture and the gathering of the crop. The quality of the beverage it furnishes is not inferior to that of common coffee, and the plants are very productive.

A MAN from central New York, having more money than anything else, endured a tour through Europe because he thought he must. In speaking of his trip upon his return he exclaimed: "The happiest day of it all was when I stepped on my own native vice versa."

A MINCE pie at bedtime is the shorest route to the menagerie.

MISS TANSHAW'S TEA PARTY.

"What a beautiful snow storm," thought Milly, as she stood looking wistfully out of the window. She did so wish to be out! If she, too, were only a little street sweeper! It was so hard to be kept carefully within doors, so hard! She was silent for full ten minutes—busy with her thoughts. At last a happy one struck her, and she turned quickly to her mother, a pretty-faced young woman, who was deeply interested in retrimming a last year's bonnet, and who at this moment exclaimed, triumphantly:

"Really, it will be as good as new."

"Mother," interrupted Milly.

"Well?"

"Then I cannot skate?"

"No," deeply engrossed in the bonnet.

"Nor slide down hill?"

"No, child, not in this snow storm."

"But I can put on my cloak, and new fur tip-pet, and gloves, and take an umbrella, and fill a basket with goodies for poor Miss Tanshaw. Can't I? For she is so poverty poor, you know."

Milly had one thought for Miss Tanshaw and two for herself. For in reality, she thought herself very hardly used to be kept in doors while she deemed it rare fun to be "poverty poor," like Miss Tanshaw, in her little play-house room. Her mother smiled wisely and gave her permission to go. So Milly, like the little woman that she was, equipped herself for the walk. She then went into the store-room and put into a willow basket a loaf of bread, a jar of sweet-meats and four red apples. After which preparations she started forth with as happy a face as one could meet in a day's walk; and the face was no happier than the little warm heart beating beneath the warm cloak. No wonder the snow was not cold to her.

"Oh, the snow, the beautiful snow!" the little heart kept chanting to itself, as she watched the starlike crystals alighting on her dress and gloves. Even the old board fence with its clinging vines, shorn of their summer beauty, was draped in the beautiful snow. Oh, it came down so quietly and comfortably as if it had a world of leisure, and a world of its wealth to bestow. All too quickly she was at Miss Tanshaw's door. In answer to Milley's "rat-tat-tap" at the door, it creaked and wriggled and groaned a little, and then swung wide open; and there stood Miss Tanshaw, a little shriveled figure, the shoulders pinned tightly up in an antiquated baby-blanket, embroidered all around in "herring bone," and various other marvelous stitches. From under the shawl peeped two arms, clothed in the neatest "leg-o'-mutton" sleeves. On one finger was a—ring? No; something just as dear to her, and it be-tokened a life-long engagement, too! It was an old brass tinkle, worn full of holes, and as bright as gold itself. But I must not forget her face. A white face, with white hair, white eye-brows and eye-lashes, and two deep-blue, bright, twinkling eyes, which seemed to say, "Ah me, what a dear, delightful, busy world it is; and I've a young heart for it yet, if the wrinkles are in my face."

"Bless the child," she cried in her short, crisp way. "Did she come down in the snow?" And she drew Milly in and took the long broom and swept her from head to foot. "Now, my dear, I've swept the way to your mouth, I must have a kiss." So giving her an emphatic embrace, she whirled her along the hall of the tenement house, into the least atom of a room—not half as big as your play-room—and perched her up in an old arm-chair.

If any one ventured to suggest that Miss Tanshaw might be more comfortable in a large room, she laughed within herself, exclaiming: "No, no, my dearies; you see I have only to

sit in the middle of my room to reach everything. There's my Bible, and there's my bread-jar, and there's my work basket, and there's my cutting-board, and there's the stove with the teapot—so handy." And her hand pointed round the room as if it were a hand on a clock pointing to the hours. "Besides, as for wood. I'm warm as toast with burning two sticks and a few kindlers a day. Then I can tidy up the room, bright as a basket o' chips, in less than a wink o' time."

Milly thought this house-keeping was a wonderful affair, and Miss Tanshaw a sort of divinity. A happy thought struck Milly as she sat perched in the arm-chair, and Miss Tanshaw flitted like a humming bird about her.

"Miss Tanshaw."

"Well, dear?"

"Let's play tea."

"Bless the child! Play tea? Of course you shall." And she buzzed over to a little cupboard, and brought out a tiny, shining tea-kettle, and put it on the tiny stove, over the blaze. It began to sing and sing. She then whirled a little round table—resting on one leg with three carved claws—into the centre of the room. Over this she spread a strip of old white, home-made linen. Upon this she placed one plate with a dot of butter, and another plate with a dot of cheese, and another with a dot of "sass." Then she brought out a crusty piece of bread, two marvelous little china cups, and two ancient plates, figured with red.

Then came Milly's turn. She climbed down from her perch; drew the basket from under her cloak, which she had declined removing; put the loaf on the table, then the jar, and then ranged the four apples beside them.

"Bless the child! bless the child!" cried little Miss Tanshaw, lifting her two hands, and rolling up her two bright eyes. Then she chattered and hummed like the tea-kettle, as she took Milly's wrappings and hung them on a peg, and filled up her teapot, and then sat down to the table. There was a deep silence in the room—even the kettle forgot to sing: all was silent but the old ticking clock. So, in the silence, Miss Tanshaw's laughing eyes closed; and her fingers, pricked with a score of needles were now crossed devoutly on her breast, and her lips moved with the words: "For our blessings, Lord make us truly thankful. Amen." Milly's eyes grew larger and rounder than ever. When Miss Tanshaw lifted her sweet face, it was as light as if in some way the Lord himself looked out of it.

"Miss Tanshaw."

"What, deary? Will you have a sip of tea?"

"Do you always say it?"

"Why, to be sure I do,—have a lump o' sugar in it—only I usually say I and me. Now you know it's we and us."

"Why do you say it? Our folks don't."

"You see, Milly,—have a bit of butter? there's more on the shelf,—you see, I have so much to be thankful for. Bless your heart! Why, I keep singing within me all the time, I'm so thankful."

"What for, Miss Tanshaw?"

Milly had forgotten to eat.

"What for? Why, if it ain't one thing, it is another. If it ain't the broken candles the grocer gives, it's the liver from the Grimes's in killing time; and if it isn't the liver, it's the shirts to make from the Pickniff's; and if it is not the shirts, it's sitting in Miss Markham's pew; and if it isn't the pew, it's the chips from the new barn a-building; and if it isn't the chips—have a bit of cheese?—why the beautiful snow comes down for me to look upon; and when I'm thinking of the poor woman round the corner, who should come in but little Milly, as if she snowed out of the clouds. So now I shall have a feast to take to the poor hungry woman I was a-thinking of. Don't you think I ought to think of the giver, Milly?"

Milly's face was full of shame and awe.

"I say, Miss Tanshaw, don't you ever say me any more. You just play I'm here, and you say (lifting up her little hands), 'Lord make us truly thankful.'"

A tear came into Miss Tanshaw's eye.

"Yes, deary, it shall be us after this. Any way, all that love the Lord are 'us.' It's just like the 'ring-around-a-rosy' in the school play. We all have a-hold of hands, and are 'us'—only the ring goes all around the world."

Miss Tanshaw and her little guest finished their tea, and cleared away the dishes, and gathered up the fragments, that nothing might waste, then put them in the basket, and went forth in the snow and the growing darkness to carry blessings to the poor woman around the corner.—*St. Nicholas.*

BOTTLED SUNSHINE.

When the cloudy winter days followed by the long chilly evenings have come, how pleasant to gather around the cosy fireside and give ourselves up to the enjoyment of social converse. Contented with the home atmosphere, we care not for the lack of sunshine in the outer world, and agree that we are more than compensated for its loss in the luxury of a delightful wood fire. If the weather is stormy, our pleasure is correspondingly increased. We contract the cold and gloom without with the warmth and brightness within, and wonder how any one can prefer the heat and glare of a summer's sun to enjoyment like these. Summer may be a "glorious season," but winter, too, has its pleasures, and for true comfort we would not forego the present for the brightest days of summer.

Just here a question obtrudes itself and disturbs the current of our meditations: "How is it that we have the temperature of mid-summer when the cold winds and driving rains are reminding us that it is mid-winter?" We are rather puzzled at first, but the answer soon flashes into mind: "Our firewood is but a repository of sunshine stored up during the long summer days." In other words, we are using "bottled sunshine." This may seem a strange idea, but let us trace the history of our fuel and see from whence comes the heat. Many years ago a little acorn moistened and warmed by the rain and sun burst its shell and sent a tiny root downward to take nourishment from the earth. At the same time the little stem surmounted by its plumule shot upward into the air. Then the leaves—its lungs—appeared one by one, and the oak, though so small, was an independent tree and able to gather its own food from the elements. Year after year branches and roots were added and multiplied until at last it became the mighty tree of the forest. And so the old oak stood, while generations perhaps were born and buried, defying the storms of winter, drinking sunshine all summer long through every pore and storing it in the wood and bark, only to fall at last by the woodman's ax. And all that we might be comfortable to-night. No wonder we can laugh at wintry winds when we have a store of heaven's own sunlight.

If natural sunshine is so necessary to the comfort and well-being of our physical lives, how much more essential is the sunshine of cheerfulness to our moral lives. 'Tis true we may exist without it, but it could only be a diseased vitality at best.

How shall we be able to meet the cold, dark night of adversity, should it come upon us, if we have not stored up cheerful sunny beams during the summer of prosperity? Some may be growing in dark places. The sun of happiness may not shine on them, and it may seem a difficult task to store up beams of cheerfulness and contentment under such adverse circumstances. But if you will always turn towards the light, and are ready to appropriate every stray gleam of sunshine, it will be possible. Remember that to whom little is given, little will be required.

So bottle the sunshine, and in large quantities. Some persons keep a supply, but it is so small they only have enough for visitors. Let us be wiser than they, and put up a sufficiency for family use. Bottle the sunshine!—*Norma Robinson, in Pacific Rural Press.*

A GOOD MARK FOR DAME FASHION.

Fashion, fickle goddess, has led her votaries into such extravagances, that she has brought down on herself the denunciations of sensible men and women—and serves her right; but she certainly is now, unprecedentedly good, and I feel it in my heart not to withhold a commendatory word.

Perhaps, never before was comfort, health and convenience so studied in connection with dress. For one, I confess myself happy to be able, without making myself conspicuous, to wear clothes that feel comfortable, or rather that I do not feel at all. It is really delightful to put on the short dress of to-day, no dragging train to carry, and one less backache to soothe. Perhaps I am prejudiced by my comfort, but it seems to me that women never looked so well before. We have actually come to a place where extremes seem to be left out, except with the empty-headed few, who will always strain anything into extremes.

We have neither the unwieldy leviathan of crinoline, nor the insufferable tie back, but skirts that clear the ground and with just fullness enough, answering to the old lady's idea of a dress skirt, "a walking length and a striding width." To be sure trimming is in many cases overdone, but a plain dress with a little graceful drapery, is by no means an oddity. O, woman! do fall so deeply in love with the simple short dress, that you will never give it up, never!

Large waists, too, are admissible. Think of the days when the wasp was the ideal of womanly beauty. Physicians, teachers, and old wise-heads lectured, talked and wrote against it, but a line from a novel describing Belinda's slender, tapering waist, had more weight with the most of the feminine sex. But Dame Fashion decreed "Woman shall breathe again," and Presto! forthwith corset strings were loosened, and heart and lungs and liver took a new lease of health and life. There are some brainless creatures yet, who know no better than to rejoice in a waist that is out of all proportion with their shoulders and hips; their loss will not be felt much when they finally break in two.

Talk about the good old days! Rather pity your buried grandmothers, aunts and other feminine ancestors, wishing that they could have lived in this decade! How did it all come about? Who studied out and skillfully cut and fitted the patterns for underclothes that are a joy to wear? Think of the old bands and bands, that cut and sawed and "skewed round." Now with garments dependent from the shoulders, with the corset waist or corded waist, or "Health" waist, furnished with fastenings for the skirts, so that their weight need not hang on the hips. We pity the queens even, who lived and died before this happy change was brought about.

Even the shoes have had a reform! The high, tapering heel, set in the middle of the foot, on which idiotic fashionables precariously balanced themselves, has given place to a low, broad one, and poor pinched toes are trying to recover their identity in wide, roomy shoes.

To go from the feet to the head, a lady's dressing-table is no longer covered at night with rolls, curled hair and switches, and her head in the daytime is not of such extraordinary proportions, and intricate make-up, as to be a source of amazement to one not accustomed to the arts of higher civilization.

As for headwear, there are bonnets and bonnets, and hats and hats. Hence, in spite of the many useless and startling affairs with which some will always offend the eyes, there are really sensible shapes and styles of adornment. They are large enough to suit even a man, and many of them light and soft, and altogether comfortable. Hoods, too, again—pretty, fluffy hoods—that cover up one's ears, and are proof against the nipping fingers of the most spiteful frosts. And the children, too, have little bonnets or hoods. Many a time I have shivered with horror to see little girls on a cold winter's

day with tiny hats set on one corner of the head, they looked so blue and cold. Now it is the fashion to keep warm.

There is nothing more Pharisaical in my burst of self-congratulation. I know there are still enough petty feminine weaknesses to lament, and there are enough ever ready to raise their voices in lusty lamentation over past sins, if not present ones; but I for one am encouraged, and I do feel like sending up a jubilant hymn of thanksgiving, though in the interludes I confess that I improvise a litany, from tilts and panier, from tie-backs, fantails and Grecian bends, from any relapse into the unmitigated follies of which the feminine gender has heretofore been guilty, deliver us.—Contributor, in *Rural New Yorker*.

HOW WEBSTER'S GREAT SPEECH WAS PRESERVED.

The true story of the diamond necklace Daniel Webster gave to Mrs. Joseph Gales is said to be this: When Mr. Webster made his celebrated reply to Senator Hayne, of South Carolina, Mr. Gales, the senior editor of the *National Intelligencer* undertook to report it, at the request of the orator, who assured Mr. Gales that the speech would not be more than half an hour long. The editor was busy, but he thought he could spare time to take down and write out so short a speech. But as Mr. Webster was ascending the steps of the Capitol on the morning that he was to speak, he met Judge Story, who told him that it was a good opportunity to give his views upon the constitution. Webster acted upon the suggestion, and instead of speaking for half an hour, he spoke for three hours. Mr. Gales, under the spell of the orator, wrote on, perfectly unconscious of the lapse of time. But when he came to look over his notes he found they were so voluminous that he would never have time to transcribe them. The speech not appearing in the *Intelligencer* in due time, Mr. Webster called upon the editor at his house, who told him that the speech was so long and his time so much occupied that he feared he could not find time to write it out for publication. While the orator was expostulating with the editor, and endeavoring to urge him to the work, Mrs. Gales appeared and said she thought she could write out the speech, as she had been in the habit of assisting her husband in transcribing his notes. She undertook the task, and in two days sent Mr. Webster his speech in full. A magnificent diamond necklace was the rich reward of the Massachusetts Senator. And thus was preserved to American literature the masterpiece of our greatest orator.

PRESERVING FLOWERS.—The flowers must be carefully surrounded by perfectly dry, fine sand, in such a manner that they will hold their form, the pressure of the sand upon all surfaces being alike. Any fine clean sand will answer; it should be sifted to remove all coarse particles, and then washed in successive waters until dust and all earthy and clayey matters are washed away, and the last waters when poured off are perfectly clear. The sand is then to be dried and then to be placed over a fire in a proper vessel, until quite hot, hotter than the hand can bear, and when cool it will be fit to use. After heating, it should be used at once, before it can absorb moisture from the air. Good results have been obtained by taking a clean, thoroughly dry flower-pot, the hole in the bottom of which was stopped by a cork. This was filled a third full of the dry sand, the flowers set carefully in the sand, and then more sand slowly added, so as to surround and cover the flowers inside and out, and set in a warm place. At the end of 24 hours, the cork was removed from the hole in the flower-pot, and the sand allowed to run out in a small and gentle stream. The flowers were left in the pot, perfectly dry.

HUSBAND AND WIFE.

It is the happiest and most virtuous state of society in which the husband and wife set out together, make their property together, and with perfect sympathy of soul, graduate all their expenses, plans, calculations and desires with reference to their present means and to their future and common interest.

Nothing delights man more than to enter the neat little tenement of the young people who, within perhaps two or three years, without any resources but their own knowledge of industry, have joined heart and hand, and engaged to share together the responsibilities, duties, interests, trials and pleasures of life. The industrious wife is cheerfully employing her hands in domestic duties, putting her house in order or mending her husband's clothes, or preparing the dinner, while perhaps the little darling sits prattling on the floor or lies sleeping in the cradle, and everything seems preparing to welcome the happiest of husbands and the best of fathers when he shall come from his toil to enjoy the sweets of his little paradise.

This is the true domestic pleasure. Health, contentment, love, abundance and bright prospects are all here. But it has become a prevalent sentiment that a man must acquire his fortune before he marries, that the wife must have no sympathy nor share with him in the pursuit of it—in which most of the pleasure truly consists—and the young married people must set out with as large an establishment as is becoming those who have been wedded for twenty years. This is very unhappy; it fills the community with bachelors, who are waiting to make their fortunes, endangering virtue, promoting vice; it destroys the true economy and design of the domestic institution, and it promotes inefficiency among females who are expecting to be taken up by fortune and passively sustained without any care or concern on their part, and thus many a wife becomes, as a gentleman once remarked, not a "helpmate," but a "help eat."—*Golden Age*.

MONEY AND WIVES.—Do you know I have known men who would trust their wives with their hearts and their honor, but not with their pocket-books—not with a dollar. When I see a man of that kind, I always think he knows which is most valuable. Think of making your wife a beggar! Think of her asking you every day for a dollar or two dollars, or to humbly beg for 50 cents. "What did you do with that dollar I gave you?" Think of having a wife who is afraid of you! What kind of children do you expect to have with a beggar and a coward for their mother? Oh, I tell you, if you have but a dollar in the world, and you have to spend it, spend it like a king; spend it as though it were a dry leaf and you the owner of unbounded forests. That's the way to spend it. I had rather be a beggar and spend my last dollar like a king, than to be a king and spend my money like a beggar. If it's got to go, let it go. Get the best you can for your family—and look as well as you can yourself. When you used to go courting, how nice you looked! Ah, your eye was bright, your step was light, and you just put on the best you could. Do you know that it is insufferable egotism in you to suppose that a woman is going to love always, looking as bad as you can? Think of it! Any woman on earth will be true to you forever when you do your level best.—*Ingersoll*.

DR. LIVINGSTONE gave his testimony in favor of total abstinence in the following words: "I have acted on the principles of total abstinence from all alcoholic liquors during more than twenty years. My individual opinion is, that the most severe labors or privations may be undergone without alcoholic stimulants, because those of us who have endured the most had nothing else than water, and not always enough of that."

THE LOST OCCASION.

Some die too late and some too soon,
At early morning, heat of noon,
Or the chill evening twilight. Thou,
Whom the rich heavens did so endow
With eyes of power and Jove's own brow,
With all the massive strength that fills
Thy home horizon's granite hills,
With rarest gifts of heart and head
From manliest stock inherited,
New England's stateliest type of man,
In port and speech Olympian;
Whom no one met, at first, but took
A second awed and wondering look
(As turned, perchance, the eyes of Greece
On Phidias' unveiled masterpiece);
Whose words, in simplest home-spun clad,
The Saxon strength of Godmon's had,
With power reserved at need to reach
The Roman forum's loftiest speech,
Sweet with persuasion, eloquent

In passion, cool in argument,
Or, ponderous, falling on thy foes
As fell the Norse god's hammer blows,
Crushing as if with Talus' flail
Thro' Error's logic-woven mail,
And failing only when they tried
The adamant of the righteous side—
Thou, foiled in aim and hope, bereaved
Of old friends, by the new deceived,
Too soon for us, too soon for thee,
Beside thy lonely Northern sea,
Where long and low the marsh lands spread,
Laid wearily down thy shy august head.

Thou shouldst have lived to feel below
Thy feet disunion's fierce upthrust—
The late-sprung mine that underlaid
Thy sad concessions vainly made.
Thou shouldst have seen from Sumner's wall
The star-flag of the Union fall,
And armed rebellion pressing on
The broken lines of Washington.
No stronger voice than thine had then
Called out the utmost might of men,
To make the union's charter free
And strengthen law by liberty.
How had that stern arbitrament
To thy gray age youth's vigor lent,
Shaming ambition's paltry prize
Before thy disillusioned eyes;
Breaking the spell about the wound
Like the green withes that Sampson bound;
Redeeming, in one effort grand,
Thyself and thy imperiled land!
Ah, cruel fate, that closed to thee,
O sleeper by the Northern sea,
The gates of opportunity!

God fills the gaps of human needs,
Each crisis brings its word and deed.
Wise men and strong we did not lack;
But still, with memory turning back,
In the dark hours we thought of thee,
And thy lone grave beside the sea.
Above that grave the east winds blow,
And from the marsh-lands drifting slow
The sea-fog comes, with evermore
The wave-wash of a lonely shore,
And sea-bird's melancholy cry,
As nature fain would typify
The sadness of a closing scene,
The loss of that which should have been.
But, where thy native mountains bare
Their foreheads to diviner air,
Fit emblem of enduring fame,
One lofty summit keeps thy name.
For thee the cosmic forces did
The rearing of that pyramid,
The prescient acres shaping with
Fire, flood and frost thy monolith.
Sunrise and sunset lay thereon
With hands of light, thy benison,
The stars of midnight pause to set
Their jewels in its coronet.
And evermore that mountain mass
Seems climbing from the shadowy pass
To light, as if to manifest
Thy nobler self, thy life at best!

—J. G. Whittier.

REMEMBRANCES OF A MOUNTAIN SCHOOL.

The village of Mabie was in a delightful place, where three canyons met, and the Trinity river flowed past on its way to the Pacific. Mabie was built on a sunny slope, looking south across a black bridge, and over climbing banks alive with busy miners. The single street wandered past bits of orchard, and gaily blooming roses before the trim cottages, until it passed quite out of sight among the bushes of manzanita. In some places it jogged along quietly, but at least twice, and that in the very heart of the town, it frolicked down into a cross gully, wet, cool and full of ferns, and then twisted among the willows till it was nearly lost.

Sometimes this amusing street slipped shyly around the corner of a miner's cabin, built out of line, and sometimes, as if in pure revenge, it crept over whole vacant lots, and quite surrounded solitary and timid shanties.

The school-house stood in a clump of cedars a little above the town. Near it there was a rocky hollow, dotted with immense boulders in pyramidal piles, over which clematis and blackberries tangled in bright profusion, and wild roses of delicate pink clung to the rocks. The vagrant street aimed directly for the door of the school-house, but a rocky slope cooled its ardor, and it wandered off into the hollow, so that only a little footpath went across the bright grass to the drooping cedars, and wound around them until it found the three brown steps and the breezy porch where the sun-bonnets hung in term-time.

School was to begin on Monday, so Saturday afternoon I went to the quiet school-room in order to get acquainted with the surroundings. I stood a moment on the porch, looking over the picturesque village and across the wide river to the smoky heights and the soft, moving clouds. Then my thoughts came back to the school-room, so soon to be filled with childish faces—some sweet and pure, some sad and lonely.

Going in I found a captive linnet who had flown in through a broken pane, and was vainly exploring the ceiling, but perceiving the open door, he whisked out with almost invisible speed. The room was rather out of order, and a little dismal, except for a pleasant ray of sunshine which shone on the teacher's desk.

Now, just as I was standing in this rather dusty place, I heard some one open the gate and come up the walk. A blue-eyed little girl of eight stood by the door and tapped, swinging her sun-bonnet shyly, yet looking up with a cheery confidence that was very winning.

"Well, little lady," I said, with a smile, "so you and I both came to look at our school-house?"

"Yes, sir," the child replied, "I'm Lizzie Baker, and Nellie and I wanted to fix the school-house, so we got Sadie and Maud Willis to help us."

The other three children stood by the gate with mop and bucket. They came in shyly, and we got acquainted. Maud was a dark witch, full of mischief. She stepped on the log first when they crossed the sluice; she jumped from the haymow and dared the others to follow; she threw gravel at Pat Malloy's calves till he almost grew angry, but could not help forgiving her after all. Sadie was a demure, brown-haired child, always neat and fond of make-believe plays. "Old Maid" the sarcastic boys called her, at which she smiled bewitchingly, but said never a word. Nellie was the silent one, dark eyed, timid and thoughtful, and "Nellie Baker says so" was the strongest possible argument among the children of the busy mountain town. Lizzie, the flyaway, was a sunny child, full of comic speeches, and she sang like a lark on a pine tree, in the midst of summer, and looking over leagues of shining and beautiful mountains.

Well, we fixed up the school-room, tacked the loose maps against the wall, cleaned the blackboard, banished an ugly piece of rawhide, swept the floor and put larkspurs and fritillarias on the desk. Then we stood on the porch while the children pointed out the scattered houses of the town and named their owners. But it was late, so they said good-night and walked demurely down the slope, four solemn young ladies. Before they got half way, however, Maud, the irrepressible, caught her scarlet hood and swung it with an airy cry. The merry contagion spread, and they scampered down, pushing, laughing and struggling, with perfect good nature, while I enjoyed the fun from the hill. Really these small maidens were as charming as their own native hills.

School began, and went on with its fun and its earnestness, its troubles and its hard work, just as schools always do, I suppose. One day Maud came to me in high excitement.

"O! O!" she cried, "the Indians are coming."

Now this sounded like an alarming statement, suggestive of scalping and massacres, but I knew it was only an expected dance to be given by several of the northern California tribes. The next noon they entered town in a long array. The men were mounted on spotted cayuse ponies; the women carried bundles and babies. They chose a level place near the river, felled trees and arranged them in a circle, piling bunches on the outside. Then they raised a cluster of eagle feathers to the top of a pole, and sent a fat boy around to announce that they would dance that night, and wanted the white people to come and see them.

The attendance was large, and the scene was strange indeed. A huge fire was in the middle of the ring, lighting the whole sky with its flashes. The town people occupied one side, in a semi-circle close to the bushes. A tall chief stood grave and silent near the fire. Nellie and Lizzie were with me, for their mother was absent, and we were chatting about the funny shadows on the ground, when suddenly the chief began to snap a split willow rod and chant in perfect time. Voice after voice took it up in the distance, coming nearer and nearer, till suddenly 20 warriors in full war paint and feathers, sprang into the ring with a wild and unexpected yell. The chant grew faster; they traced an intricate pattern on the hard ground, stamping wildly, whirling, lifting their shining hatchets, now and then yelling with fierce energy.

So the dance went on for many minutes, and the Indians grew very much excited, till suddenly the strange chant ended, and, facing their visitors, the braves dropped on one knee, silent and still and near. It was a curious thing to see those 20 bronze figures motionless in the flickering light. One knelt just in front of us, a sleek, dark, painted villain, and his eyes fairly glistened. Nellie looked very sober, and Lizzie screamed and clung to me saying: "He looks bad, very bad indeed." The Indian's eyes twinkled, it almost seemed with satisfaction, as if he understood her, and was inwardly amused. Suddenly the chant began once more, and, springing to their feet, they danced out of sight.

The next dance was a feminine affair. Two long rows of women clad in calico, ornamented with beads and shells, stood in the center facing each other, and danced backward and forward, bobbing their heads sidewise, lifting their shoulders and swinging their elbows in a most ludicrous way. Lizzie, reassured, began to laugh. "They look," she said, "as if they wanted to fly, and it hurt when they tried." Each woman had a spot of blue paint an inch in diameter on cheeks, forehead and chin. I asked the children, who thought this painting was dreadful, whether they had ever seen anything like it before. They thought not; but when I smiled, Lizzie spoke up: "Oh yes, me, at the spring," and looked sober for nearly half a minute. For the four little girls had, on the day previous, got several of the primer class and formed a mud-pie society with much hubbub at the spring, and, when I appeared on the scene, the pies being in the sun, they, with nothing of importance on hand, were comfortably streaking their own faces. Whereat I laughed, and the minxes fled with sudden confusion, appearing when the bell rang, with excessively clean faces and much averted glances.

The last dance of all was performed by a chosen few in a costume of hides and horns, accompanied with singing and clapping of hands by all the tribes. Then the usher, with his eagle-tipped rod, waved us out, and then they began those secret dances which no white man ever sees, keeping them up till nearly morning.

Lizzie, Nellie and I crossed the mining ditch on a broken plank which sagged in the middle, and followed the wandering street past the deaf shoemaker's cabin; past Mabie's ruined mill and Robert's store, and the little hotel on the slope and the funny walled-up well in the middle of the street; past the wild grapevine on the oak at the corner, and so down the hill to the black bridge over the rapid Trinity river. Then we sat down on a broken wheelbarrow and talked about the beautiful stars which shone in

the clear summer sky overhead. Orion, the belted hunter, and the silver fire-flies, and the sailor's kindly guide. Then we tried a run over the long bridge, and, a little out of breath, we found the cottage, hid in flowers and trees, where I left the children in their mother's care.

The pleasant days blossomed in pearl and rose, and ripened in purple fires above the Trinity mountains. Each day the children seemed more faithful. Katrina, the German girl, with her two braids of corn-silk hair; Philip, the patient cripple; Duckie, the very small Indian, to whom soap-suds were chiefest of evils; and all the rest of the light-hearted assemblage. My desk was never without flowers and curiosities, brought there for naming, and for quiet afternoon lectures.

When, a little later in the season, the water began to run feebly and the miners prepared to cease work, the children told me that I would soon be astonished—as indeed I was. For, on the next morning, my desk was piled with fossils and minerals picked up in the empty sluices. As I examined and named each specimen, the children buzzed around, giving me the history of each find. There were several ammonites, a number of petrified leaves, acorns and wood, several fragments and one tooth of a mastodon, a small piece of platinum, the jaw of a grizzly, and, rarest of all, Sadie's contribution, the tooth of an extinct llama, which proved to be the second of that species found in the State. So we had materials for many lectures, and the nucleus of a school cabinet. We gave a little evening celebration, and the miners came, applauded vigorously, and promised us the curiosities found in their claims. We had enough money to buy a nice cabinet, with glass doors, which arrived one summer noon, and was escorted up the hill by the delighted children.

After this a blushing miner, with his rubber boots yet dripping, would sometimes tap at the door and hold out a specimen "for the children." Generally, however, the miners preferred to give them to some favorite on the way to school. In this way Lizzie once brought a shark's tooth as large as my hand, and Maud came to school tugging a splendid geode, full of lovely pink crystals.

There was one miner, known as Long John, whose claim had never furnished any specimens and he was rather worried over it; so one day Nellie came in, looking very happy, and put a lump of virgin gold on my desk. It was an irregular flattened mass, shaped much like an anemone root, and worth, perhaps, \$12. "Long John gave it to me," she cried, "for our cabinet, 'so that some of the gold should stay in Mabie forever,' he said."

Then Duckie, the small Indian, went to some of his wild kindred, and got us a warrior's head-dress and weapons; also household utensils without number—water-tight baskets of grass woven in squares, hollow reeds full of paint, masks for dances, deer calls and needles of bone. Duckie was voted a public benefactor, and we began to study savage history and the beginnings of races and peoples.

Soon our outside work, which vivified all the school life, divided itself into many departments. Some children loved the plants best, and so they brought specimens of woods, leaves, flowers and fruits. Others studied the formations of rock and varying soils. One of the boys took a special delight in land snails, of which he made two collections—one for school and one for home. And they all chased butterflies.

The four little friends were among the most earnest. Sadie collected mosses with delightful ardor. Nellie loved the shy ferns. Maud and Lizzie brought handfuls of flowers for the herbarium, and the flower stands—great bunches of spotted lilies, beaked Dodecatheons, scarlet Mimulus, pink roses, fragrant Yerba Buena, and countless mountain flowers brought to me for a name.

The months went by too swiftly, and the school term drew to an end. The last day came, with examinations, and the exhibition of maps, drawings, cabinet of curiosities and herbarium. Every one who had helped us was there, and

the walls were hung with cedar, the work of the children, whose Sunday clothes hid sorry hearts that day.

Just as the hour for dismissal came, the lumbering stage drove up to the foot of the hill, and the little tearful faces clustered round, and the miners gave me their honest hands. "All aboard for Shasta!" cried the fur-coated driver. Four sad little girls came up last of all, and I asked them always to remember our beautiful summer, and always to love nature. Then I had to go.

I remember, hours later, just at sunset, as the stage paused on the grade miles distant from Mabie, and hundreds of feet above it, the winds rolled back the clouds we had climbed through, and the setting sun made each peak of snow a carven amethyst, each slope of pine a shining emerald. I looked back, where the wrinkled ravines were knotted about the shaggy slopes I had climbed so many times before; the busy

A MAN out west has invented a device to prevent marketmen from palming off old eggs. The invention is thus described: He proposes to arrange a rubber stamp in the nest of every hen, with a movable date. This stamp is arranged with a pad which is saturated with indelible ink. When the hen lays an egg, as is well known, she kicks slightly with her hind leg. An electric disk is arranged so that her foot touches it, when the stamp turns over on to the ink pad and then revolves, stamping the date on the egg. The hen then goes off about her business, the farmer's hired girl removes the egg, replaces the stamp, which is ready for another. On each evening, after the hens have retired to their downy roost with the roosters, the date of the stamp is changed to the following day, and the good work goes on. In this way there can be no cheating. You go to the grocery and ask for fresh eggs, and the groceryman says he has some eggs of the vintage of



FREDDIE'S PUSSY.

mines in the yellow cliffs; the rude cabins on the hill; the orchards, and patches of alfalfa, and purple-fruited vineyards along the bends of the stormy river. And I blessed the fair mountain land, the children safe in its shelter, the brave and kindly hearts of the rugged miners who made it their home and wrested from the gray hearts of the crags their hidden, shining grains of gold.—Chas. H. Shinn, in *California Horticulturist*.

OUR Miss Florence is a bright little five-year-old. Yesterday her mother was telling her the story of Jonah's disobedience and punishment. As his experience with the whale was graphically narrated, terminating with Jonah's sudden arrival on terra firma, Miss Florence quickly queried: "Was he very wet?" Mamma replied: "I think not." "Well, he must have smelt awful!"

March 1, 1880, for instance. You look at them, and there are the figures, which cannot lie. With this method, it is an object for the man to get rid of his eggs, knowing that to-morrow may be too late.

TRUE AND BRAVE WOMEN.—To be able to look cheerfully and hopefully through clouds of poverty and distress is an accomplishment bestowed by nature upon every true and brave woman; and, no matter how poor or humble her home may be, the magic power of smiles can brighten its shadows and lighten its cares. Upon the troubled mind of a feeling husband a wife's smile falls like a sunbeam on a flower. And how much more beautiful it makes the face that wears it than a frown! When a wife or mother forgetting sorrows and hardships, smiles away her tears, there is a loveliness in the act that speaks to a man's heart more eloquently than words.

ELOQUENCE OF LABOR.

Eloquence to be effectual must be impressive. It must, to awaken sympathy, possess magnetic influence combined with essential verities. It must, while appealing to thought, be able to arouse impulse. It must be based upon facts and be instigated by the necessity of the occasion. These are the leading qualifications to make eloquence productive of the desired results. Its minor features are but subdivisions of its above enumerated concomitants. All these requisites, and even more, are possessed and continually practiced by labor.

It is impressive because it shows the results of its efforts. It speaks in a language that cannot be misunderstood, of the benefits which it is ever and always competent to obtain. It shows that its acts are causes which conduce to the accomplishments of its desires and its designs.

In appealing to sympathy with its unmistakable truths, it points to its utile creations and to its additions to the wealth and the welfare of nations, and awakens the desire to emulate its examples in so meritorious a cause. It shows how the world is made productive and its barren places caused to become fruitful. It tells of the banishment of sterility from the soil and the installation of a prolific epoch in its stead. It arouses the energy of the agriculturist and nerves him to more strenuous exertions to derive increased yields from the land. It incites the artisan to the creation of new mechanical devices through whose assistance widely extended manufactures are disseminated.

It engenders impulse by its bold and vigorous instances of successful manipulations, and appeals to the investigating and thoughtful mind by its array of incontrovertible facts regarding the benefits it is able to confer upon mankind.

Its eloquence never ceases; from the rising of the sun to the going down thereof, its utterances are continued with all their convincing arguments. Its language never descends from sublimity of conception, or falls to the vain, frivolous or futile. It adapts itself to the comprehension of the unlettered, and fascinates the scholastic with the purity of its diction. It holds out no wild inducements, it utters no falsehoods, it speaks only of well-proven truths. It asserts no false dogmas, it deals not in sophistry and it abhors prevarication. It breathes no insinuations, but it ever gives voice to decided and plain assertions.

Its most potent arguments are uttered in its moments of most earnest toil. While striving to its utmost tension it is most convincing. Its proofs are omnipresent, self-evident and irrefutable. It recognizes facts and ignores postulation. Its voice rises whenever the sound of labor breaks upon the stillness of the air, and while toil continues it never relapses into silence. Each deep-drawn breath of the worker is its intonation of argument, while the result of his exertion is its correlative proof. Its eloquence is generated in the narrow apartment of the half-finished seamstress by the faint tone of the cloth-piercing needle, as well as in the rushing sound of the most remote and extensive sun in the stellar universe. It finds its audibility in the silent brain thought of the inventor, through whose telephonic power it causes itself to be heard by the people of nations.

It is god-like in its power, for it is omnipotent in its persuasiveness; equally so in its verity, for truth is its solid basis. Since the incipency of creation it has never been silent. Its tones pervaded space with their harmony ere man came into existence, for it gave voice to the stars when they sang together their rhythmic hymn of joy and adulation. And now that man does exist, it exerts itself for the promotion of his welfare, and all its utterings

are for the advancement of his prosperity and to his benefit if he will but heed purport of them.

WOMEN OF ANTIQUITY.

Through the misty dawn of the early ages, woman, the flower of the human race, has taken the earliest steps, and the most direct in agriculture. Lifting the veil of fiction, lo! Isis, Queen of Egypt, gave precious lessons on agriculture to her people, while her husband, Osiris, gave them law. Isis assumed the ox as the grand symbol of the farm; thus Apis becomes an Egyptian god. Then comes the fertile, lovely island of Sicily, where Ceres was Queen, and was deemed to be the mother of Plutus, the god of gold, because agricultural crops were worth all. Ceres dwelt in Enna, one of the then finest cities of Sicily. Cicero describes it in glowing terms. Strabo, who wrote 1800 years ago, speaks of its delightful fields, meadows etc. Diodorus Siculus, before that, praises it. Homer, long before, says: "This beautiful country was the first to produce wheat."

The Minerva of Athens, the Parthenon virgin Queen, raised olives. Flora took care of the flowers; Pomona of the fruit. Semiramis gained renown by her lovely gardens. Woman has taken care of the garden and farm, while man was hunting or fighting or lazing. Early Rome did all that. An Empress of China introduced the mulberry and silk. Isabella, sister of the European Charles V, married Christian, King of Denmark, and first taught him how to raise good vegetables. The ladies of the court of the Emperor Rudolph, in the sixteenth century, studied botany and imported foreign plants. Mademoiselle Linnaeus, the daughter of the great botanist, aided him, and so did Mademoiselle Pommereuil, for which Linnaeus gave her name to a fine plant, the Pomeruella. Madame de Genlis wrote strongly in favor of the science.

HOW WHISKY PAYS.—Some years ago we had in our employ a man who several times a day ran out of the office to buy a drink of whisky. Every time he went out the cashier was instructed to drop ten cents into the drawer to our credit. At the end of seventeen months, the man who had gone out so often had drank himself out of a good situation, and the drawer, when opened, was found to contain four hundred and nine dollars, which we loaned to a young mechanic at seven per cent interest. He used it to purchase a set of tinner's tools. On the 15th of November, 1876, he returned it to us with interest, saying in his letter that he has now a wife, two children, and property worth five thousand dollars. The other fellow is a bumner, hunting for food.—*Ec.*

MORE ABOUT COLOR BLINDNESS.—Dr. Keyser, who has spent eight months in examining train employees of railroads that center in Philadelphia, finds color blindness in 3 1/4% of the whole number so marked that they were unable to distinguish one color from another, while 8 1/2% although able to tell colors, were unable to distinguish shades, and were thus rendered incapable of performing duties required of railroad men. Two of the color-blind men had educated themselves to know that red is a bright, intense color as distinguished from green, which they described as dull. But when light green was put before them, they called it red. They explained that the green light had at times shown red to them, and they had stopped the trains. But suppose the red had shown green!

"How nicely this corn pops," said a young man who was sitting with his sweetheart before the fire on Christmas eve. "Yes" she responded demurely, "Its got over being green."

CAUSE AND CURE OF SEA-SICKNESS.

Much has been said and written in regard to the cause and cure of sea-sickness; but as yet no very acceptable theory has been given for the one, nor any specific for the other. Dr. Henry Naylor, of Edinburg, Scotland, holds that it is caused by a cerebral anemia, which means a deficiency of blood circulation in the brain. He says:

"The rapid swinging of the vessel, and the body with it, irritates the eyes and vision, and this, by reflex action, produces a spasm of the cerebral capillaries; this explains the feeling of faintness and giddiness that comes on suddenly just as the vessel gives a big swing. The sudden emptying of the cerebral vessels causes the stomach to sympathize, resulting in efforts of vomiting, whether the stomach be full or empty. These symptoms are most distressing when the subject is in a standing or sitting position, with the eyes open. If he lies down, the change of position relieves the anemia, the faintness and giddiness pass off, and the sickness ceases. But occasionally even a recumbent position does not give relief, if the eyes are kept open. When they are shut, the symptoms are not felt in the least. I have known this to be the case with several ladies, who were never comfortable while at sea unless they were lying down with their eyes closed. They were able to eat meals and retain them, if they laid down and closed their eyes immediately afterwards. In fact, I have been obliged to keep some constantly in bed to prevent their dying of starvation."

"A fact that helps to show the feasibility of the anemic theory, is that brandy and other stimulants give considerable relief for a time, which would not be the case if cerebral congestion had to do with sea-sickness. The explanation of how sea-sickness continues so persistently in some, is that the sickness weakens the heart's action, and this keeps up the cerebral anemia, and that in turn again produces the sickness; so that prolonged sea-sickness is due to a circuit of causes, the one producing the other—the visual irritation, cerebral anemia, sickness, weak heart's action."

Amyl nitrate usually does good in sea-sickness, used at once, because, being an anti-spasmodic, it relieves the spasm of the cerebral vessels, and thus the brain is refilled with blood, but if it fails, then the persistent sickness, by its effect on the contractions of the heart, prevents the brain from getting a sufficient supply of blood, and thus the brain becomes anemic, not from a spasm of the capillaries, but from an insufficient power of the heart. In this case alcoholic stimulants in small doses, frequently repeated, are better.

LEAP-YEAR PREROGATIVES.—If any of our young women desire precedents for exercising leap-year prerogatives, they may be interested to know that the leap-year privilege of ladies choosing their husbands is explained in a work entitled "Love, Courtship and Matrimony," London, as long ago as 1606: "Albeit it has now become a part of the common lawe in regarde to social relations of life, that, as often as every bissextile year dothe return, the ladies have the same privilege during the time it continueth of making love unto the men, which they doe, either by words or looks, as to them it seemeth proper; and, moreover, no man will be entitled to the benefit of clergy who doeth in any way treat her proposal with slight or contumely."

A RED-DY ANSWER.—Very red-haired passenger: "I say guard, why on earth don't the train go on?" Guard: "Good gracious, sir! put your head in; how can you expect it to go while that danger signal is out?"

An exchange says: "Our consuls in China grow rich and return as China Astors." This is natural, on account of their stay in the Flowery Kingdom.

ALICE CARY'S SWEETEST POEM.

Of all the beautiful pictures
That hang on memory's wall,
Is one of a dim old forest,
That seemeth best of all;
Not for its snarled oaks olden,
Dark with the mistletoe;
Not for the violets golden
That sprinkle the vale below;
Not for the milk-white lilies
That lean from the fragrant hedge
Coquetting all day with the sunbeams,
And stealing their golden edge;
Not for the vines on the upland
Where the bright red berries rest;
Not the pinks, nor the pale sweet cowslip,
It seemeth to me the best.

I once had a little brother,
With eyes that were dark and deep—
In the lap of that olden forest
He lieth in peace asleep;
Light as the down of the thistle,
Free as the winds that blow,
We roved there the beautiful summers,
The summers of long ago;
But his feet on the hills grew weary,
And one of the autumn eves
I made for my little brother
A bed of the yellow leaves.

Sweetly his pale arms folded
My neck in a meek embrace,
As the light of immortal beauty
Silently covered his face;
And when the arrows of sunset
Lodged in the tree tops bright,
He fell, in his saint-like beauty,
Asleep by the gates of light.
Therefore, of all the pictures
That hang on memory's wall,
The one of the dim old forest
Seemeth best of all.

HOW MEG CHANGED HER MIND.

Little Meg lay on the sofa in her mother's pleasant sitting room, with a very discontented expression on her plump, round face.

Everybody knows that a sprained ankle cannot be cured without perfect rest. Meg had not been allowed to put her foot to the ground for a week. Her father carried her into the sitting-room every morning, and Mamma read aloud, and played games and devoted herself to Meg's pleasure; but on this afternoon, Mamma was obliged to go out for an hour or two, and it had just occurred to Meg that she was very tired lying still, and moreover, that this was the day Edith Perkins was having a party, and she imagined what fun they must be enjoying, while she was left at home with Jane, the maid. She had plenty of books to read and a large family of dolls of all kinds, from wax to paper; besides Snow-ball, the fat, white kitten, who was always ready to play, but she was out of humor and did not wish to amuse herself with any of these things; besides, her ankle ached.

And so it happened that when Aunt Mary arrived to spend the afternoon with her pet, she was greeted with a burst of tears and sobs, mingled with oft-repeated lamentations of "Oh! how horrid everything is! I want to go to Edith's party! There never was anybody in the world so unfortunate as I am!"

Poor Aunt Mary tried soothing and petting in vain, till at last she said, "Meg, dear, I want to tell you about some little sick children I saw in London. Wouldn't you like to hear? I can't begin till you stop crying."

One of Aunt Mary's London stories was not to be despised, and presently Meg said, in quite an altered tone, "Do tell me, Aunt, I won't cry now."

"Well, then, in the mighty city of London there are many people so dreadfully poor that they suffer from hunger and cold and dirt every day of their lives. Now, this is fearful enough for the strong ones, but fancy what illness must be in a crowded room, on a hard bed, with no clean linen; no cooling things to drink, or nice, nourishing food to give strength; without any doctor, very likely, and in short, with more misery of every kind than you and I could even imagine.

"Knowing all this, good people have built

hospitals where these unfortunate ones can have every thing done to them to soothe their sufferings and help them to get well. Some of these are especially for children, because it is thought that they can be better taken care of in an hospital suited exactly to their wants, than where there are sick people of all ages. In one that I went to see, there were about fifty little patients, divided among four large, airy, cheerful rooms, with pictures on the walls, and flower-plants in the windows. Each child had a neat little iron bedstead, with a white counterpane, and across each bed a sort of shelf-table was fixed upon which their play-things were arranged. Very queer play-things they were, generally old shabby toys that had been discarded by more fortunate children; but although most of the dolls were more or less forlorn, and the horses didn't look as if they could run very fast, they were highly valued by those little people, some of whom probably had never had a toy of any kind before. In one of the rooms, the little patients were too little to play, but as they lay back on their pillows they gazed fondly at their small possessions; and the dolls who sat on the little tables, with their legs hanging over the edge, vacantly staring at their poor owners, I dare say did them as much good as did some of the doctors' medicines.

"In the other rooms the children were able to have a good deal of fun, if one could judge from the merry laughter one heard at the little jokes that went about from one bed to another, and yet, do you know, Meg, it often was saddest of all to see the children who seemed most comfortable, because one knew that while some of the few who were violently ill might get quite well again with the good care they were having, many of these would never walk or run, or be rosy, healthy boys and girls any more in this world.

"One little boy named Arthur, I was told, was a great favorite with all the rest, and I did not wonder at it when I spoke to him, and heard his sweet voice and saw the bright smile that lit up his pale, little face. He told me with delight that his mother and father and the baby came to see him every Sunday, upon which a little girl in the next bed, said sadly, 'I've no mother to come and see me, for she is dead,' but she added, brightly, 'Father comes, though, once a month.'

"I turned away to hide the tears that would get into my eyes. Of course, I knew that the kind doctors and nurses at the hospital did all they possibly could for the happiness of the poor little things, but it seemed to me so very, very hard, that they could not have their mothers, just when they were ill, and needed them so much!

"One thing that brightened all, was their sweet behavior to each other. Not one bit of jealousy or selfishness did I see, and there was a real courtesy in the way that each one seemed to care that the others should be noticed too. I could not help contrasting it with the rude, self-seeking of many children I have known who ought to do better and not worse than they.

"And how shall I tell you how patient they were? There was no crying nor complaining, though some were suffering dreadful pain; and the only noise I heard was a slight moan wrung from the white lips of a little hero, who had been brought in the day before, dreadfully injured by a fall. There was a kind, strong angel in that hospital, whose sweet presence, though unseen, was felt. Yes," whispered Aunt Mary, as she bent to kiss Meg's upturned, questioning face, "it was the angel of patience, darling, and he will always come to everybody who longs for him, and tries faithfully to keep him when he is here."

The story was finished, and Meg lay quite still for some minutes, thinking, with her hand fast clasped in Aunt Mary's. Then she said, softly, "I'm very sorry I was so naughty, I don't really think I am more unfortunate than anybody else, and I'll never say so again."

Meg did not forget her promise, and all through the remaining weeks of her confinement to the sofa, the angel of the hospital staid close by her side.—Elizabeth Lawrence.

THE BOY IN LOVE.

In man's life falling in love is a revolution. It is, in fact, the one thing that makes him a man. The world of boyhood is strictly a world of boys; sisters, cousins, aunts and mothers are mixed up in the general crowd of barbarians that stands without the playground. There are few warmer or more poetic affections than the chivalrous friendship of schoolfellows; there is no truer or more genuine worship than a boy's worship of the hero of scrimmage or playground.

It is a fine world in itself, but it is a wonderfully narrow and restricted world. Not a girl may peep over the palings. Girls can't jump, or sag out, or swarm up a tree; they have nothing to talk about as boys talk; they never heard of that glorious swipe of old Brown's; they are awful milksops; they cry and "tell mamma"; they are afraid of a governess, and of a cow.

It is impossible to conceive a creature more utterly contemptible in a boy's eyes than a girl of his own age generally is. Then in some fatal moment comes the revolution. The barrier of contempt goes down with a crash. The boy world disappears. Brown, that god of the playground, is cast to the owls and the bats. There is a sudden coolness in the friendship that was to last from school to the grave.

Paper chases and the annual match with the old "fellows," cease to be the highest object of human interest. There is less excitement than there was last year when a great cheer welcomes the news that Mugby has won the prize. The boy's life has become muddled and confused. The old existence is sheering off, and the news comes slyly, fitfully. It is only by a sort of compulsion that he will own that he is making all this "fuss" about a girl. For a moment he rebels against the spell of that one little face, the witchery of that one little hand.

He lingers on the border of this new country from whence there is no return to the old playing fields. He is shy—strange to this world of woman and woman's talk and woman's ways. The surest, steadiest foot on the playground stumbles over footstools and tangles itself in colored wools. The sturdiest arm that ever wielded bat trembles at the touch of a tiny finger. The voice that rang out like a trumpet among the tumult of football bushes, trembles and falters in saying half a dozen commonplace words. The old sense of mastery is gone; he knows that every chit in the nursery has found out his secret, and is laughing over it. He blushes—and a boy's blush is a hot, painful blush—when the sisterly heads bend together and he hears them whispering what a fool he is. Yes; he is a fool; that is one thing that he feels quite certain about. There is only one other thing he feels even more certain about: that he is in love, and that love has made him a man.—*Home Journal*.

METEORIC IRON IN SNOW.—Observations of snow collected on mountain tops, and within the Arctic circle, far beyond the influence of factories and smoke, confirm the supposition that minute particles of iron float in the atmosphere, and in time fall to the earth. By some men of science these floating particles of iron are believed to bear some relation to the phenomena of the aurora. Gronemann, of Göttingen, for instance, holds that streams of the particles revolve around the sun, and that, when passing the earth, they are attracted to the poles, thence stretching forth as long filaments into space; but, as they travel with planetary velocity, they become ignited in the earth's atmosphere, and in this way produce the well-known luminous appearance characterizing auroral phenomena. Prof. Nordenskjöld, who examined snow in the far north, beyond Spitzbergen, says that he found in it exceedingly minute particles of metallic iron, phosphorus and cobalt.

THE EUROPEAN CARP.

Within the past few years a great deal has been said concerning pisciculture as a source of revenue to farmers and others who have the facilities for engaging in it. For the benefit of those of our readers who are interested in the matter, we give in this number of our paper a picture of the true European carp (*Ciprinus carpio*) and a view of the Government carp ponds at Washington.

About the time that carp were brought to this coast, by Mr. Poppe, of Sonoma, Co., Cal., there was also inaugurated a movement on the part of the United States to secure the fish for general distribution throughout the country. In 1876, Prof. Baird, United States Commissioner of Fisheries, having for a long time understood the importance of acclimating the carp in this country, engaged an eminent German fish-culturist, Dr. Rudolph Hessel, to bring over a supply of the best varieties of this favorite European food-fish. The first experiment, in May, 1876, was unsuccessful, and out of 300, with which he started, only four survived. In May, 1877, Dr. Hessel returned from a third trip, bringing to New York 345 young carp, 227 of which were of the varieties known as the "leather carp" and "mirror carp," and 118 of the common or "scale carp." They thrived and increased rapidly in size, and in May, 1878, 120 were removed to the Government carp ponds, built for them on the Washington Monument Reservation, in the city of Washington. These ponds, a plan of the essential portions of which is given below, are constructed after the best German models, and cover about twelve acres of land, in the vicinity of the Washington Monument. The letters upon the engraving are interpreted as follows: A, B, C, D, E and F, hatching ponds; G, turtle pond; H, watch house; J, east pond; K, northwest pond; L, southwest pond; O, O, outlets; P, P, fountains.

The carp have now multiplied to such an extent in the Government ponds that it is possible to begin the work of distributing them. The introduction of this new food-fish will be of great interest and importance to all inland communities; for there is no ditch, pond, or mill dam, or any boggy, muddy spot, which can be converted into a pond, in which they will not thrive. It will be strange if, within twenty years, carp do not become as common domestic animals as ducks or pigeons.

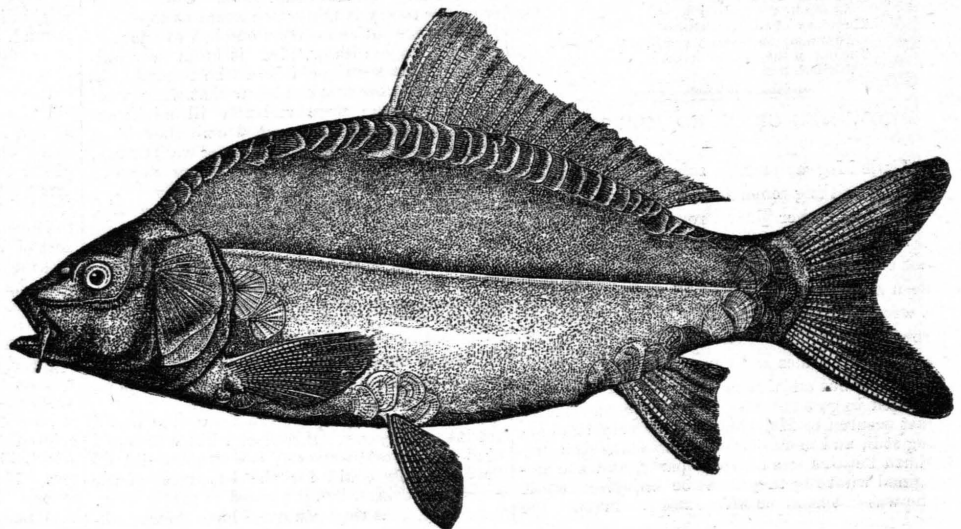
The carp belongs to the family known to naturalists as the *Cyprinidae*, members of which are to be found in every stream and pond in North America. Good examples of this family are the common goldfish, and the familiar brook species known everywhere by such names as "dace," "chub," "red-fin," "fall-fish" and "shiner." The "Buffalo-fish" of the West is also said to resemble it in many respects. The carp, however, is the king of his tribe, and those who know, do not hesitate to say that, as a food-fish, it far excels the best of them.

The carp has other and strong recommendations: It is, of all fish, the most readily propagated and reared. It has been domesticated in Europe from time immemorial, having been introduced many centuries ago from Central Asia or China, where it is native. Carp soon become tame and eat from the hands of their keeper. Dr. Hessel handles those in the Government ponds as if they were tame kittens, and says that they come to him when he whistles. Their fecundity is great. A fish weighing four or five pounds lays 400,000 to 500,000 or more eggs, and one of ten or fifteen pounds

about 1,500,000. In Middle Europe they spawn from May to August, and the breeding season appears to be nearly the same in Washington. In 1879 they spawned here from June to September. The eggs are sticky, and cling to plants and twigs, hatching in from nine to eighteen days, according to temperature. The actual rate of increase is very great, owing in part to the fact that the parents do not devour their young. The one hundred and twenty fish brought to Washington two years ago have increased to, at least, 20,000. It is thus able to populate a body of water to the fullest extent. Unlike the majority of American food-fishes, their diet is largely vegetable, and they are particularly fond of water-cresses and other juicy plants. They also devour worms and insect larvae, which they root out of the mud, and all kinds of refuse matter, such as the offal of kitchens, slaughter-houses and breweries. By reason of these habits, they are harmless to other fishes inhabiting the same waters.

The carp is adapted to very varied climates, and will thrive under conditions unfavorable to any equally palatable American fish. It is very hardy in all stages of growth.

HAVE PATIENCE TO TEACH THE GIRLS.—I have met very few mothers who were willing to take the time and trouble to teach their young

THE EUROPEAN CARP—*Ciprinus Carpio*.

daughters the little womanly arts of sewing, knitting, crocheting, and the simpler kinds of embroidery. It is left for some one else to do this duty, and perhaps such a teacher will never be encountered until such inclinations are all crowded out by less desirable tastes. I have watched little ones look on with longing eyes to the nimble fingers of some fortunate companion, whose mother had found time to teach how to work, and to fashion such lovely things with a crochet needle and a ball of bright zephyr. Teach the little girls all these little, pleasant arts, and you will find them much more willing to engage in the common tasks of wiping dishes, making beds and dusting rooms. Many dull days come, when the little girls are actually housed, how much such work, patiently and lovingly taught by mother, would be enjoyed and appreciated, and how greatly would the outside dullness be brightened by so much content and sunshine within? We have too little patience in teaching children; we think they should learn in a moment what we have known and practiced for years.

FAINTING AT SIGHT OF BLOOD is due to a very sensitive temperament, and an organization lacking in courage and stamina are at the bottom of this weakness. Loss of blood, in the mind of some, is associated with suffering and death, and a dread of these has something to do with the faintness.

A MOTHER'S POWER.

A moment's work on clay tells more than an hour's labor on brick. So work on hearts should be done before they harden. During the first six or eight years of child-life, mothers have full sway; and this is the time to make the deepest and most enduring impression on the human mind.

The examples of maternal influences are countless. Solomon himself, records the words of wisdom that fell from a mother's lips; and Timothy was taught the Scriptures from a child, by his grandmother and mother.

John Randolph, of Roanoke, used to say: "I should have been a French atheist were it not for the recollection of the time when my departed mother used to take my little hands in hers, and make me say on my bended knees, 'Our Father who art in Heaven!'"

"I have found out what made you the man you are," said a gentleman one morning to President Adams. "I have been reading your mother's letters to her son."

Washington's mother trained him to truthfulness and virtue; and when his messenger called to tell her that her son was raised to the highest station in the nation's gift, she could say: "George always was a good boy."

A mother's tears dropped on the head of her little boy one evening as he sat in the doorway and listened while she spoke of Christ and His salvation. "Those tears made me a missionary," said he when he had given his manhood's prime to the service of the Lord.

Some one asked Napoleon what was the great need of the French nation. "Mothers" was the significant answer. Woman, has God given you the privileges and responsibilities of motherhood? Be faithful then to the little ones. You hold the key of their hearts now. If you once lose it, you would give the world to win it back. Use your opportunities before they pass.

And remember, little ones, you never will have but one mother. Obey and honor her. Listen to her words, and God will bless you day by day.—*The Christian*.

A YOUNG woman from New York city, who is teaching the Indians at Hampton, Va., was recently drilling a company of girls on the hymn, "Yield not to temptation," and trying to explain to them the meaning of the words. Some time after the class was dismissed, a pupil came to her and said: "Me victory!" meaning that she had gained a victory. Being asked to explain, she said: "Indian girl, she big temptation to me; I no yield; I fight her." More intelligent Christians often have equally convenient ways of interpreting truth.

THE KINDERGARTEN CROW.

Nobody knew how it happened. Every morning the floor of the school house entry was wet, as if someone had been carrying water in a very leaky dipper. Nobody did it. Not one of the scholars could tell anything about it. There it was every morning—a wet place on the floor.

Then something else happened. The tin dipper that hung by the water pitcher was found in the stove, nearly melted away. At any rate, no one could ever drink a drop out of it again.

Who did that? The teacher asked every one, and nobody could tell anything about it, and really it was very strange indeed.

It was a Kindergarten school. A Kindergarten school is the best place in the world. They have games there, and they tell stories about birds and trees and animals of every kind. Now the teacher of this school could tell "the very primest kind of stories," and on the day the drinking dipper was found on the stove

"Ho! ho! It isn't a real, truly real crow! Say, teacher, now, it isn't a real crow? Is it?"

"Well, I don't know," resumed the teacher. "It acts like a crow. Every day it spills water in the entry-way. Nobody but a crow would do that. Crows like to make trouble, and I think there really must be a black crow in the school house. I have not found him yet, but I expect every morning to see him hopping up the stairs, or to find him perched on the top of the door, and winking his black eyes at the scholars."

"Say, teacher, I guess I saw him."

"You, Johnny! Did you see him?"

Johnny felt pretty badly, but he said he didn't mean to do any harm, and he wouldn't do it again—no, never. And he didn't.

So they never found the crow in the Kindergarten after all.—Charles Barnard.

RATS.—Rats are a great nuisance in any house, and it is perfectly proper to war against them in every conceivable way. The *Scientific American* gives the following method of ridding a house of them. It has one advantage, that, if

WHEN TO MARRY.

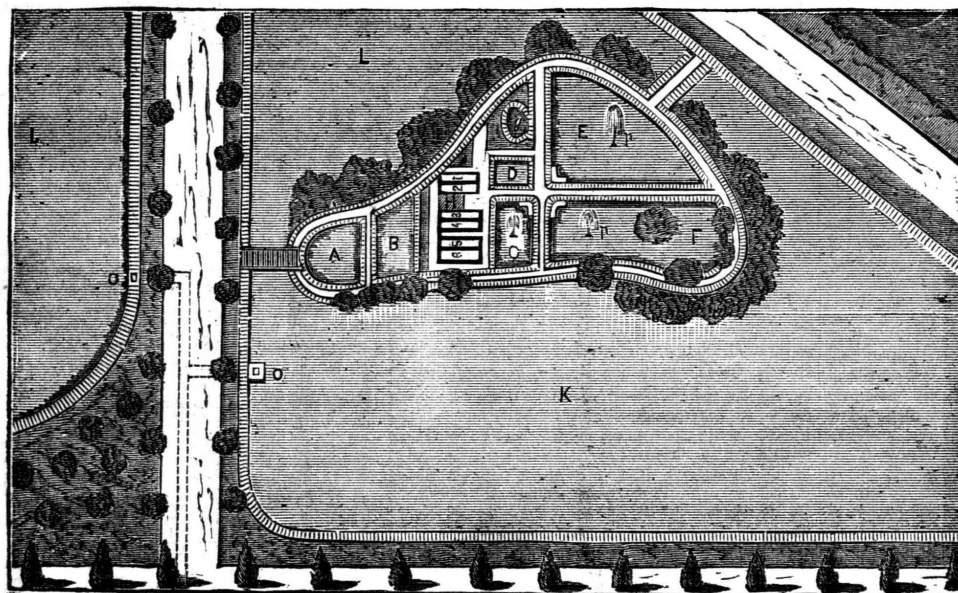
Ought engagements to be long or short? It has often been said, says a London paper, that nothing so much helps to steady a young man as the being engaged to a girl whom he loves, and for whom he works to prepare a suitable home. The solicitude of David Copperfield's friend Traddles to buy bits of furniture—flower pots and such like—for the house where he and his betrothed were to dwell was a pretty thing, and much to be commended; but on the other hand, it is undeniable that long engagements have their drawbacks especially if the young people see much of each other during the period of probation. In this case much of the bloom is taken off the poetry of courtship, and no less gilding off the prospect of marriage. There may be a great deal to say against the policy of wedding in haste, but young people who take each other for better and for worse, in all the

illusion of mutual trust and admiration, go through a time of ecstasy unknown to those who marry quite rationally. The honey-moons of such pairs are halcyon epochs to be remembered all a life long, and if the after periods seem dull and loveless by comparison, yet it is something to have lived for however brief a time up to the highest ideal of felicity.

Besides, there is no little sweetness in having faced the hardships of life together. If a young couple have to encounter poverty, and if they conquer it side by side, lightening all their labors by sharing them, and diminishing their troubles by mutual consolation and encouragement, they forge links which must bind their hearts closer and closer together. I like to see a snug young man stacking up money in bank against his wedding day, whilst his future wife looks on complacently at the operation as one who should say: "Thomas must earn a good many more pounds before he can furnish a house good enough to lodge me;" but I like still more to see a young husband and wife who have feathered their nest together.

It is pleasant to hear a smiling woman remark: "We had nothing at all when we were married; but see now how cosy we have made our house." This means that there has been cheerful hard work on the one side, thrift and self-denial on the other. In fact, union. After all, the yoke of marriage is an apparatus that should sit on two pairs of shoulders; and there is nothing very seemly in seeing a girl wait to wear her own part of it until it has been nicely padded with quilted satin.

A HOUSEHOLD WATER MOTOR.—In Zurich, Switzerland, the use of a portable water power, so to speak, is being extensively used for household purposes. Firewood, for example, is to be sawn into convenient lengths for burning. A small sawing machine on wheels is drawn by two men to the front of a house. They connect by a flexible tube with the nearest hydrant; the water flows to the machine; the saw dances and cuts up the wood with surprising rapidity. A portable turbine has also been invented, and employed in many places in the same city, in driving a Gramme machine for the production of electric light. Water is very abundant in Zurich; but there are other towns in which this domestic water power could be advantageously introduced. Where it is any object to keep a record of the water used, an indicator showing the quantity may be affixed to the machine.



PLAN OF GOVERNMENT CARP POND, WASHINGTON, D. C.

she called all the scholars into the school-room and said that she had something to tell them. Of course it must be a story. Every one sat still, and prepared to hear something very wonderful.

And so it was—very wonderful indeed. The teacher said she had a crow in the house! A crow! A real, live crow! Yes, a regular crow. What is a crow? A bird. What color is he? Black, with black eyes and a great beak. Did you ever see a crow? Yes, in the woods, but never in the house.

Sometimes they tame crows, but they are not pleasant pets. Why not? Because they love to pick up things—bits of thread or a thimble, or even a spoon, and anything else they can find. How very queer! Whatever can a crow do with a spoon or a thimble? No, a crow does not really want the things he finds, but he always picks them up and carries them away, and he hides them in the top of a tree, or in some dark corner, where no one can find them, and as he cannot tell anyone where they are, the things are lost. Crows always are likely to be at such mischief, and in fact they make very unpleasant companions.

"But what do they do so for? Nobody knows. It must be only for mischief and to make trouble. Now, this crow I have is full of mischief, and I don't know what I shall do with him. To-day he stole the dipper and hid it in the stove."

not successful, the benefit of cleanliness and disinfection is at least secured: "We clean our premises of these detestable vermin by making whitewash yellow with copperas, and covering the stones and rafters in the cellar with it. In every crevice in which a rat may tread, we put crystals of the copperas, and scatter the same in the corners of the floor. The result was a perfect stampede of rats and mice. Since that time not a footfall of either rats or mice has been heard about the house. Every spring a coat of the yellow wash is given the cellar—as a purifier, as a rat exterminator—and no typhoid, dysentery or fever attacks the family. Many persons deliberately attract all the rats in the neighborhood by leaving fruits and vegetables uncovered in the cellar, and sometimes even the soap is left open for their regalement. Cover up everything eatable in the cellar and pantry, and you will soon have them out. These precautions, joined to the services of a good cat, will prove as good a rat exterminator as the chemist can provide. We never allow rats to be poisoned in our dwellings, they are so liable to die between the walls and produce much annoyance."

A CONTENTED MIND.—Lady: "They tell me your new cow never gives any milk, Betty?" Old Betty: "No, mum, she don't give hardly any. But, bless 'er heart, she'll eat as much as two o' them good milkers."

HOME READING.

One of the pleasant and noble duties of the head of the family is to furnish its members with good reading. In times that are past, it was considered enough to clothe and feed and shelter a family. This was the sum of parental duty. But latterly it has been found out that wives and children have minds, so that it becomes a necessity to educate the children, and furnish reading for the whole household. It has been found out that the mind wants food as well as the body, and that it wants to be sheltered from the pitiless storms of error and vice by the guarding and friendly roof of intelligence and virtue. An ignorant family in our day, is an antiquated institution. It smells of the musty past. It is a dark spot which the light of the modern man of intelligence has not reached. Let good reading go into a home, and the very atmosphere of that home gradually but surely changes. The boy begins to grow ambitious, to talk about men, places, principles, books, the past and the future. The girls begin to feel a new life opening before them, in knowledge, duty and love. They see new fields of usefulness and pleasure.

And so the family changes, and out of this number go honorable members of society. Let the torch of intelligence be lit in every household. Let the old and young vie with each other in introducing new and useful topics of investigation, and in cherishing a love of reading, study and improvement.—*Our Home Life*.

HOME.—The person, young or old, who has a good home, and conducts himself worthy of it, has one of the strongest influences to restrain from vice and to inspire an ambition to cultivate noble qualities, that can possibly environ him. Leaving, he is a wanderer till the hour arrives for return. There is great force in the saying, "Be it ever so humble, there is no place like home." It is not in palaces and gorgeous display, nor in the cottage o'er whose walls the ivy creeps and by whose walks the roses bloom, but in that place where the heart finds rest and has the sum of its earthly treasures. Those without a home are on a trackless sea without a haven, and the soul is ever tossed in unrest until dashed upon the rocks in an aimless voyage.

THE other night a nervous man in Burlington was awakened by hearing a marauder in his chicken-house. He hastily dressed himself a little, sneaked out to the hen-house, grasped his club firmly, put his head in the door and shouted, "Come out of there, you son of a sea cow, or I'll chew the heart out of you!" and then, before he could see which way to strike, a big dog, with a jaw like an alligator sallied out of the hennery and bit him four times in the legs before the astonished man could reach the hall door. The man is now writing a pamphlet to prove that, owing to the untrained and limited intelligence of the lower order of animals, language calculated to inspire man with terror may be addressed to a strange dog with no effect beyond that of enraging him.—*Hawkeye*.

NEVER CONTENT.—It is both the curse and blessing of our American life that we are never quite content. We all expect to go somewhere before we die, and have a better time when we get there than we can have at home. The bane of our life is discontent. We say we will work so long, and then we will enjoy ourselves. But we find it just as Thackeray has expressed it. "When I was a boy," he said, "I wanted some taffy—it was a shilling—I hadn't one. When I was a man, I had a shilling, but I didn't want any taffy."—*Robert Collyer*.

It was a delicate piece of sarcasm in the boarder, who sent his landlady last evening a razor, neatly inclosed in a handsome silk-lined case and labeled "Butter-knife."

NO COMPANY OR GOOD COMPANY.

This is a motto worthy of the attention of all, both young and old, for human character is of such an impressible nature as to be easily affected by those with whom it comes in contact. The fellowship of the good is not only advisable, but desirable for the young, whose aim should always be to higher standards than themselves. Direct personal intercourse with men and women of high intelligence and refinement, and contact with those whose tendency and inclination is good, never fails to bring some happy effect and beneficial influence. Better far be alone than in the society of the low-minded and impure, as even gazing upon debased specimens of humanity, will in time taint, as it familiarizes and gradually assimilates the mind to such a model.

The habits of those advanced in life are rarely changed, then how absolutely necessary is it to form good ones when young, as then from sympathy, unknown to themselves they gradually imitate and imbibe the tone and style of their associates. Such being the case too much care cannot be taken in the selection of companions, who will have a beneficial after influence on the character. The most pure and beautiful admonitions and the best of rules, with bad examples, avail nothing; hence the great importance in the choice of those who are to be with and influence the young by contact and example. More genuine good and profit will be derived from even a short contact with the intelligent and educated, than from constant poring over books. Contact imparts either good or bad according to whom it is with.—*Exchange*.

FEEDING HENS WITH IDEAS.—In her book on "How Two Girls Tried Farming," the author says her hens were fed "with ideas"—that is, we fed them chemically; but the finely chopped green vegetables—now lettuce, now cabbage, now onions, now fruit—the coarse meats bought at market; the varied grains, with constant "middlings" stirred up with hot water—now with dust of cayenne pepper, now salt, now sulphur; the constant supply of plaster and bones, and the constant supply of fresh water brought us the desired result—eggs the year round, a supply in winter as well as in summer. To be sure we earned them; but we had not committed the fatal mistake of supposing we should get things on our farm without earning them.

WHAT STRONG DRINK DOES.—This was the terribly suggestive statement crayoned on the blackboard which stood on the platform at the Chicago noon prayer-meeting the other day:

It costs \$1,000,000,000 a year in money.

It makes fifty per cent. of our insane.

It makes ninety-five per cent. of our criminals.

It causes directly seventy-five per cent. of our murders.

It sends forth ninety-five per cent. of our vicious youth.

It sends one every six minutes into a drunkard's grave, or nearly 100,000 a year.

DISINFECTANT FOR THE BREATH, ETC.—A very weak solution of permanganate of potash is an excellent disinfectant for light purposes, such as rinsing spittons, neutralizing the taint of diseased roots of teeth, cleansing the feet and keeping the breath from the odor of tobacco smoke. While the above statements are strictly correct, we feel called upon to state that the permanganate of potassa is altogether too expensive to use for the purpose above named. A very diluted solution (1% to 2%) of chloride of zinc will answer quite as well as the permanganate, and costs almost nothing in comparison.—*Manufacturer and Builder*.

SYSTEM AND YOUNG HOUSEKEEPERS.—An old

"housekeeper" gives her young friends the following advice, through the columns of the *German-town Telegraph*: Every young housekeeper who sits down and seriously studies out the subject will find herself a different being if she manages her affairs with system, or if she lets them manage her without it. It is true that before she is married, all her study on the subject will be theoretical, and possibly somewhat impractical, and something like the house one builds and is enchanted with till coming to live in it. For there are things that only experience can teach, and in matters where the experience of nobody else can be of any material service. If her mother was a woman of system, the young housekeeper already has much of what she wants bred in her bone, as one may say. But, if her mother was an invalid, or was shiftless and thriftless, was overwhelmed with troubles and babies, then the daughter has to strike out a path for herself. The sooner then that she remembers that there are but seven days in the week, and that that period of time constitutes one revolution of the household, the sooner she will come into her kingdom and reign undisturbed by her people.

A FINE DOLL WEDDING.—The following report of a doll's wedding party is the first effort at reporting of a promising young journalist of twelve years, and it was published exactly as furnished by him by the *Stockton (Cal.) Herald*: A very novel and pleasing entertainment was given this afternoon at the residence of Judge Creanor, by Miss Nan Creanor. Formal invitations were issued to Miss Creanor's young friends and their dolls to attend her doll's wedding, Miss Genevieve Greenleaf to Sir A. V. T. Beaumont. The ball-room was very handsomely and appropriately decorated. The doll guests and their attendants were all dressed in the most stylish and fashionable costumes. The toilet of the bride was a very magnificent dress made in the latest style, and the toilet of the bridegroom was the usual black coat, white vest, etc. The supper was very fine indeed. There was a side-table set for the dolls, and as the cakes were in proportion to the dolls, it was very pretty. Altogether it was the finest juvenile entertainment ever given in Stockton.

HOW A LITTLE GIRL OBTAINED A MEDAL.—A little girl only eight years of age, has distinguished herself for bravery, under the following circumstances: She is the daughter of a gentleman living at Blackhall, Avonwick, Devonshire, and while walking with her governess and a younger sister, the teacher fell into a pool six feet deep. The brave child leaned over, and in trying to seize her governess by the hand, fell in herself. Strangely, she did not become frightened, but managed to hold on to the governess with one hand, and some short bushes on the edge of the pool with the other. Her cries brought a passing workman, who assisted them out. The name of this little eight-year-old heroine is Esther Mary Cornish Bowden, and the Royal Humane Society has presented her with a medal, and a testimonial detailing the circumstance.

DEFINITION OF EVOLUTION.—Herbert Spencer made the following definition of evolution: "Evolution is a change from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity, through a continuous differentiations and interrelations."

The mathematician, Kirkman, translated the definition into plain English: "Evolution is a change from a nowhere, untalkaboutable, allikeness, to a somehowish, and in general talkaboutable, not-at-all-alikeness, by continuous somethingelseifications and stick-togetherness." If a better definition can be given, we should rejoice to see it.

CHANGE OF FLOUR IN BECOMING BREAD.

In popular use we employ the word "bread" to qualify loaves which are served in slices. The rolls are much smaller. Both consist alike of crumb and crust. The crumb is made up of a multitude of cells of thin walls containing carbonic acid gas, the product of fermentation in the dough. These walls of the cells contain both gluten and starch, and traces of dextrine and sugar. As a consequence of the treatment of water and the application of heat, the starch grains, which, in their normal condition, are little sacks filled with minute granules of starch proper, have been swollen and burst. Starch similarly treated by itself, as in the preparation for stiffening linen in the laundry, when dried in a thin layer upon glass plate, for example, is transparent, and presents a glazed surface. When this glazed material is removed with a knife blade, it is seen to be stiff and horny. The gluten, which is mixed with it in the crumb of bread, and which may be conceived to be continuous, however thin throughout the wall of the cell, has been, by the process of baking, dehydrated; that is, the heat to which it has been subjected has driven out a certain amount of water, which chemically sustains something like the same relation to the gluten from which it has been expelled that the water expelled by heat from alum-crystals sustains to the original body of alum. This is the condition of the gluten from the crumb in the interior of the loaf at the instant of its removal from the oven. On drying, it abstracts the water from the starch with which it is coated, or intimately mixed, as the roasted alum absorbs the water that is sprinkled upon it. The starch, by this process, being dried and stiffened, gives its support to the walls of the cell, and renders the texture of the stale loaf more firm than that of the fresh loaf.—*Prof. Horsford.*

DAMP ROOMS, DAMP BEDS, ETC.—Damp rooms, as those in brick houses—in which the plastering is placed directly on the walls—are the fruitful sources of many of the acute or inflammatory diseases of our changeable climate. Rooms, also, seldom or never properly ventilated or sunned, in damp localities, with houses the cellar of which is wet for any considerable part of the time, are absolutely unfit for human residences. No families can occupy such houses, living on the north side, and ordinarily escape the rheumatism and kindred diseases. It is but little less than suicide to be subjected to such continued dampness. Of course the bedding of such rooms must be not only damp, but to a certain extent moldy, or have a musty odor—almost certain to produce colds and diseases, especially when the "spare bed" is used by those who are so unfortunate as to visit such houses. Such beds are unsafe, occupied only occasionally, even after having been thoroughly aired and supplied with fresh and dry blankets. If such localities must be occupied, it is judicious to use bedding that will absorb as little as possible of dampness and foulness—the mattress is superior in this regard to feather-beds—while almost daily airing becomes needful. Dark closets, closed trunks, bandboxes and the like, containing clothing, need often to be aired, allowing sunlight, the prince of purifiers, free access, often to be removed and placed in the direct rays of the sun, with a careful removal of all mold. Some free absorbent of moisture, freshly slaked lime, salt and ashes, and the like, will absorb this moisture, which may be promptly removed, at least carrying off much of the dampness. These absorb more readily and more freely than the clothes do, and will obviate a part of the evils of damp houses, and yet nothing can be an adequate substitute for the light of the sun—not even a warm fire in the room.

THE Board of Directors of the Pennsylvania Railroad have directed the restoration of the pay of all persons in the service of the company to the compensation in force at the time of the reduction in June, 1877, to take effect from and after April 1st.

HOW ENGLAND TAKES HER CENSUS.

In Great Britain a census has been taken every ten years since 1801, and the system is now one of the most perfect in existence. Until near the close of the last century, there was no real method, and all previous estimations of the population of the United Kingdom were mere guesswork. It seems the more strange that such should have been the fact, considering that, in the American colonies, enumerations of the population had often been made by order of the home government. In 1790, a beginning was made in Scotland by Sir John Sinclair, who through his personal efforts in enlisting the co-operation of all the clergymen of the established church, collected returns which were of great value, though necessarily incomplete. After seven years he completed his compilations, and published the results in 21 volumes, probably the greatest statistical work ever undertaken and carried through by one private enterprise. Under the system adopted in 1851, the census in Great Britain is now taken in one day, the 31st of March. In 1851, 30,610 enumerators were appointed in England and Wales by the 2,190 district registrars in those countries, each enumerator having a distinctly defined district assigned to him. In Scotland the 32 sheriffs appointed the temporary registrars—generally parish schoolmasters—and 8,130 enumerators. For the smaller islands, the government appointed 257 enumerators, and in Ireland the census was taken by the constabulary. Some days before the census day, printed schedules were delivered at every house or tenement; in Wales these were printed in Welsh for the benefit of the lower classes. These schedules contained questions about the name, relation to head of family, condition, age, sex, occupation and birth-place of every person in Great Britain, and also as to the number of deaf, dumb and blind. Measures were taken to secure accurately the names of night laborers, persons out of the country, travelers, seamen, soldiers, etc. These schedules were all filled up in the night of March 30-31 and were taken up at an early hour on March 31, the collector filling up the parts that had been left blank through their negligence or inability. All unoccupied houses and buildings in course of construction were also noted. The floating population—persons who spent the nights in boats and barges, in barns, sheds, etc., were required to be estimated as nearly as possible. The enumerators were allowed one week to make their returns in, all transcribed, and the summaries and estimates completed according to detailed instructions. The district registrars had to complete their revision of the returns of their subordinates in a fortnight, paying particular attention to nine specially defined points. These revised returns were again revised by the "superintendent registrars," and then transmitted to the census office. The census was the most successful, in quickness and accuracy, accomplished in any country up to that time, and the same system has been pursued, with little variation ever since. The digestion of the census reports by the central authorities is conducted most thoroughly and scientifically, and the compilations are of the greatest value to statisticians and economists. The British system has served as a model for many other countries, where the census is now taken in one day by means of printed schedules.—*Boston Herald.*

SNOW EATING UNHEALTHY.—A writer in the *Phrenological Journal* admonishes parents to guard their children from the practice of snow eating, claiming that it has much to do with head colds of many girls and boys, because of the chilling effect of snow upon the palate or thin partition between mouth and nostrils producing congestion in the fine membrane which lines its upper surface. As this membrane is almost entirely constituted of delicate nerves and blood vessels, inflammation is likely to follow the congestion, and perhaps degenerating into nasal catarrh, an affection so common with persons in our northern latitude.

POPULAR CONFIDENCE IN SCIENTIFIC DISCOVERY.

The popular mind in its attitude towards scientific progress and discovery has undergone a wonderful change in the last five or ten years. The great facts in science brought to view by the labors of investigators, so long as they had no special practical bearing upon the affairs of every-day life, were regarded with little interest, and made no deep impression upon the mind or belief of the general reader. Statements were made in the newspapers regarding this and that new fact brought to light in some department of science or art, but the news was seldom thought of or talked about in the homes of the people in the country or city.

Important and wonderful discoveries, like the spectrum analysis of new chemical elements, or new asteroids, have interested men within the circle of those engaged in research, but outside few have taken the trouble even to inquire as to the importance or significance of the new acquisitions to human knowledge. A class of discoveries, however, which seemed to involve religious beliefs or theological dogmas quickly attracted popular attention, and brought about a fierce war of words. Mr. Darwin, when he published the results of his studies and discoveries upon the origin of species became at once a marked man and an object of popular attack. He might have been the discoverer of 50 new stars, and his name would hardly have been known beyond the circle of his associates and scientific investigators generally. His views, now almost universally admitted and adopted in the world of science, continue to be derided and combatted by theologians and laymen, and in some instances with considerable sharpness and ability. The popular confidence, so far as it is influenced by such writers, does not rest with Mr. Darwin. The stupendous problems involved in astronomical science, and upon which it rests, puzzle and bewilder the popular mind, and but a kind of half assent is given to them. When the astronomer states in a public assembly that the sun is distant 92,000,000 miles, a majority are tempted to inquire, "How do you know that?" or when he states, further, that the orb is enveloped in a vast covering of incandescent hydrogen and other forms of matter, the unspoken reply is, "It may be so." We hesitate not to say that if astronomers and mathematicians had not been able to foretell eclipses, occultations of stars, approach of comets, etc., the great facts and principles of astronomy would have occupied in the popular mind a place scarcely higher than the astrology of the ancients.

This former state of indifference and doubt has now been broken, and the pendulum swings far the other way. The popular mind is ready to believe devoutly almost anything which men of research offer for consideration. The impossible, which once was observed in every direction, now has faded from view, and science seems to work miracles as did the apostles of old. The full establishment of the telegraph in all parts of the world immensely increased the popular respect for science; but when to this are added the telephone, microphone, audiphone, phonograph, electric lighting and the numerous other recent triumphs of science and art, the possibilities of scientific accomplishment have no longer a limit. There is a danger that this extreme development of faith may lead uninformed persons into errors through misapprehension, or extravagant claims of inventors and experimenters. Owners of gas stocks and other kinds of property supposed to be influenced by new discoveries should be cautious about sacrificing their securities in consequence of what is published in the newspapers. There are still many fallacies in the world claimed to be the outgrowths of science, and a wise discrimination and reserve should be maintained in all actions based upon what is claimed as new in science and art.—*Boston Journal of Chemistry.*

GIANT STEAMSHIPS.

For some years it has seemed as if the limit of size in ocean steamships was to be fixed at about 5,000 tons. It was clear that the *Great Eastern* was a gigantic failure, a costly elephant on the hands of her owners. She could not be run as an ordinary passenger or freight steamer, and found only temporary employment in the work of laying submarine cables. Whether she can be utilized as a transport for cattle to European markets, as recently proposed, remains to be proved; but it is certain that such a ship would not be built for that purpose—or indeed for any other at the present time. She may therefore be left out of the account, except as a warning that there is a limit of size, at least so far as economy of construction and working is concerned.

Steamships of 5,000 tons have been running for some ten years or more, but their number has increased very slowly, and until within a year or two there has been no disposition to build larger vessels. Then came the *Gallia* of the Cunard line and the *Arizona* of the Guion line, the former being 5,200 and the latter 5,300 tons. The *Orient*, for an East Indian line, soon followed, with a measurement of 5,386 tons. The success of these great ships, especially in regard to speed, coupled with the ambition of companies to outdo their rivals, appears to have given a new impulse to this branch of naval architecture, and two ships are now building which are to be much bigger than the biggest of their predecessors. One of these is a Cunarder, and is to be of 7,500 tons and 10,000 horse-power, her dimensions being 500 feet in length, 50 feet in breadth 41 in depth. No sooner had the Cunard Company announced their intention to build a vessel second in point of size only to the *Great Eastern* than the Indian Company determined to have a steamship of even larger dimensions. The vessel is to be built at Barrow, and is to be of about 8,000 tons, but her exact dimensions have not been published as yet.

It may be interesting to compare these ships with the *Great Eastern*. The length of the latter on the water-line is 680 feet, extreme breadth 82 feet 6 inches, and depth 58 feet. Her tonnage, according to builder's measurement, is 22,627 tons; her register tonnage, including engine space, is 18,914 tons; and her register tonnage excluding engine space, is 13,343 tons. She has stowage for cargo to the extent of 6,000 tons, and the capacity in her coal bunkers is 10,000 tons. Her draft of water when light, is 15 feet, and loaded 30 feet. She has accommodation for 800 first-class, 2,000 second-class, and 1,200 third-class passengers, but if required for troops alone she could carry 10,000 men. It will thus be seen that the *Great Eastern* is in point of size considerably ahead of anything yet ventured by ship-owners, and though there is an evident desire to increase the size of the great ocean steamers her position as the largest afloat is not likely to be disputed.

A PATENT CHALK MARK.—Not long ago, says an exchange, a man applied at the Patent Office, in Washington, for a patent of an invention which was refused, as the Examiner said, "because the invention was merely a chalk mark," and a man must be crazy to suppose that a chalk mark could be patented. But the man went into court and last week got a decision in his favor, in the shape of a mandamus compelling the Commission of Patents to issue the patent. The Judge said that a chalk mark could be patented if its application was useful and original. In this case it was applied to a piece of pasteboard, cut in a strip and fastened together in a circular form, with beveled edges, so that it could be slipped over sugar buckets, jars of sweetmeats, etc., to which insects are attracted. The man claims that all insects are repelled by chalk; and this circle of pasteboard, well chalked and tightly fitted, will act as a perfect guard against them.

THE WOOL SUPPLY.

The United States *Economist* gives some facts which are of special pertinence at this time to wool growers, because they recite some of the reasons why the present high prices prevail. There is a scarcity of wool and a quick demand for fabrics; these are the general facts. The present scarcity of wool is attributable to many reasons. It says that "hundreds of thousands of sheep have died of plague in England, and the Russia-Turkish and English-Afghanistan war, in Turkey, in Syria, in Persia, and the Indian country has caused tens of millions of sheep to be killed. In fact wool growing in Turkey, in Russia, in Persia, and all India has been almost given up on account of the war, and the low prices current for the past five years." That paper proceeds to state other and cogent reasons—some of them growing out of European complications—showing why it will be difficult to secure any large supplies of wool abroad, and adds:

"At no period in the history of the wool trade have we witnessed so excitable a market as there lies in one panorama before us to-day, no matter where we turn our gaze. It makes no difference whether we canvas Great Britain, France, Spain, Germany, Austria, Russia, Turkey, Asia Minor, Persia, India, Sydney, Australia, the Barbary states, Cape of Good Hope, the vast plains of South America, Texas and Mexico; or whether we visit the mountain fastnesses of California, Oregon, Kentucky, Tennessee, Missouri, Colorado and Nevada, until we come back to the plains of Ohio, Michigan, Wisconsin, Indiana and Illinois—in fact, wherever we penetrate, whether on the mountains or plains of Pennsylvania, West Virginia, New York, New Jersey, Vermont, and all along the arid coast of New England down to Long Island, taking in the whole circle, the markets of Boston, New York and Philadelphia—all along this whole line no fine clothing wools can be bought ready for manufacturers' use below \$1 for the scoured pound, and a great deal will cost from \$1.10 to \$1.25, and even \$1.30. Combing and delaines and carpet wools are equally high, and from the present outlook no one can tell where prices will stop. New York and Boston dealers are buying southern California, heavy, burry, greasy wools in San Francisco, and paying what is equal to \$1.17½ for the scoured pound."

The explanation for this condition of things is found in the fact that the mills cannot keep up with the orders for woollen fabrics. In all lines, the market exhibits great strength. The truth is, the entire country was never so bare of stocks of wooleens as it was a year ago, and with the revival of business, by which tens of thousands of idle men and women obtained employment, came a demand for woollen goods such as was never before known in the history of that trade in America.

HINTS ON THE USE OF PLASTER OF PARIS.

The plaster may be made to "set" very quickly by mixing it in warm water to which a little sulphate of potash has been added. Plaster of Paris casts, soaked in melted paraffine, may be readily cut or turned in a lathe. They may be rendered very hard and tough by soaking them in warm glue size until thoroughly saturated, and allowing them to dry. Plaster of Paris mixed with equal parts of pumice stone makes a fine mold for casting fusible metals; the same mixture is useful for encasing articles to be soldered or brazed. Casts of plaster of Paris may be made to imitate fine bronzes by giving them two or three coats of shellac varnish, and dusting on fine bronze powder when the mastic varnish becomes sticky. Rat holes may be effectually stopped with broken glass and plaster of Paris. A good method of mixing plaster of Paris is to sprinkle it into the water, using rather more water than is required; when the plaster settles, pour off the surplus water and stir carefully. Air bubbles are avoided in this way.

FIRE-PROOF COTTON FABRICS.

In a paper on some conditions of inflammability, read before a sanitary convention in Michigan, Dr. Kedzie, of the State Board of Health, said that cotton clothing could be prevented from taking fire by the use of borax in starching—a teaspoonful to each pint of starch, after the water has been added. The borax can have no injurious effect upon the cloth or upon the wearer, and is so cheap that all can afford to use it.

Dr. Kedzie showed by experiments that muslins and tarletans, the most inflammable goods, when treated with borax starch, could not be made to burn with a blaze. If all cotton dresses and underclothing, and especially the clothing of children, were treated in this way, a great number of lives and much suffering would be saved every year.

Dr. Kedzie said he expected that one of these days some shrewd fellow would use this receipt, mix starch and borax, and sell it as "asbestos starch," or with some other catching name, at 500% or 600% profit, and get rich out of it. The people could just as well do their own mixing and save the profit.

THE USES OF LEMONS.—Lemons are easily raised in the southern part of the State, and if they possess half the virtues ascribed to them, no one should fail to plant a few trees wherever they will grow. An exchange says: "Lemon juice is the best antiscorbutic remedy known. It not only cures the disease but it prevents it. Sailors make a daily use of it for this purpose. A physician suggests rubbing of the gums daily with lemon juice to keep them in health. The hands and nails are also kept clean, white, soft and supple by the daily use of lemon instead of soap. It also prevents chilblains. Lemon is used in intermittent fevers mixed with strong, hot black tea or coffee, without sugar. Neuralgia may be cured by rubbing the part affected with a lemon. It is valuable also to cure warts, and to destroy dandruff on the head, by rubbing the roots of the hair with it. In fact, its uses are manifold, and the more we employ it externally the better we shall find ourselves. Natural remedies are the best, and nature is our best doctor, if we would only listen to it. Decidedly rub your hands, head and gums with it, and drink lemonade in preference to all other liquors." Lemon juice is also said to be an antidote for snake poison by pressing the juice into the bite and by eating the lemons. Many testify to the beneficial effects of lemons in pulmonary diseases, and consumptives have been cured by eating them freely every day. They will give immediate relief to the most troublesome corns and cure them if their use is persevered in. Hot lemonade is the pleasantest remedy known for colds, and lemon pie for hunger.

FILIAL LOVE.—There is not on earth a more lovely sight than the unwearied care and attention of children to their parents. Where filial love is found in the heart, we will answer for all the other virtues. No young man or woman will turn out basely, we sincerely believe, who has parents respected and beloved; a child, affectionate and dutiful, will never bring the gray hairs of its parents to the grave. The wretch who breaks forth from the wholesome restraint, and disregards the laws of his country, must have first disobeyed his parents, showing neither love nor respect for them. It is seldom the case that a dutiful son is found in the ranks of vice, among the wretched and degraded.

SYMPATHETIC three-year-old: "Ma, do you feel awful bad?" Mother (who is lying on a sofa): "Yes, dear, I am terribly worried." S. C.: "Well, ma, if I was to give you the chisel out of my tool chest, don't you think it might cheer you up a little?"

A CORRESPONDENT sends us the following soul-harrowing conundrum: "Why do pigs thrive better on sour milk than they do on sweet?" And the answer is, Because they get more of it.

"LEFT NOTHING TO HIS FAMILY."

How often is this said of a man who dies, leaving no property! How often, in their ignorance, are good men saddened by the thought that, having no money to bestow, they can bequeath nothing to their children. But every child is an heir, and his inheritance is indefeasible. First of all are his memories of his parents and home. Ah! if men and women could dictate to their lawyers on paper or parchment, what memories they shall leave behind them, how differently would the record read, in so many cases! But memory is a record not open for amendment, nor subject to obliteration by another's will. We shall be remembered chiefly for what we are—happy if there be even one who will think of what we wished or tried to be. Every day and year, therefore, adds to the possessions of our children and friends, in their memories of us. How inadequately does money represent one, when compared with one's self! The trite truth that it is not what a man has, but what he is, that measures him, never seems less trite than when one thinks what he will be to his friends when he has been ten years dead! And so the man who has no property to devise should not be unhappy. "I give and bequeath to my dearly beloved wife and children a good name. Isn't that a good start to a last will? If a man can honestly and proudly write that, and then descend to possessions that are expressed in figures, so much the better. But there is the best authority for giving the preference to the intangible bequest. And if in his inmost soul the father feels that among the unenumerated legacies, each dear one left behind will have a memory of him as kind, thoughtful, generous, amiable, loving, tender and true, how dare he think that he shall die poor? These are treasures that no heirs quarrel over, and require no probate outside of the sanctuary of the heart. They are veritably "laid up in heaven." Why do the errors of the old spiritual materialists still keep men looking beyond the stars at the place where "their possessions be?"—*Golden Rule.*

IF I WERE A BOY AGAIN.

Mr. James Fields, among other things, gives the following good advice to boys, in an address before a school in Massachusetts. He says:

There are hundreds of things I would correct in my life if I were a boy again, and among them is this especial one: I would be more careful of my teeth. Seeing since I have grown up how much suffering is induced by the bad habit of constantly eating candies and other sweet nuisances, I would shut my mouth to all allurements of that sort. Very hot and very cold substances I would studiously avoid.

Toothache in our country is one of the national crimes. Half the people we meet have swelled faces. The dentist thrives as he does in no other land on this planet, and it is because we begin to spoil our teeth at the age of five or six years. A child, eight years old, asked me if I could recommend him to a dentist "who didn't hurt!" I pitied him, but I was unacquainted with such an artist. They all hurt, and they cannot help it.

I would have no dealings with tobacco, in any form, if I were a boy again. My friend Pipes tells me he is such a martyr to cigar boxes that his life is a burden. The habit of smoking has become such a tyrant over him that he carries a tobacco bowsprit at his damp, discolored lips every hour of the day, and he begs me to warn all the boys of my acquaintance, and to say to them emphatically, "Don't learn to smoke!" He tells me sadly that his head is sometimes in such a dizzy whirl, and his brain so foul, from long habits of smoking he cannot break off, that he is compelled to forego much that is pleasant in existence, and live a tobacco-tortured life from year to year. Poor Pipes! He is a sad warning to young fellows who are just learning to use the dirty, unhealthy weed.

A FAMOUS SOUTHERN GRASS.

The plant shown in the engraving has several names in the Southern States, where it has been grown for many years, but it is commonly termed either "Johnson grass" or "Means grass." Botanically it is *Sorghum Halapense*. It is described by Col. Killebrew, in his valuable re-

grass with strong, vigorous roots and abundance of long and tolerably broad leaves. Its stems attain a height of five to six feet, with a large spreading panicle. The flowers and seeds are much like those of broom corn, but the panicle is finer and more spreading." Many of the points made by the above descriptions may be clearly recognized in the engraving. This plant

JOHNSON GRASS—*Sorghum halapense*.

port on the grasses of Tennessee, in these words: "It rises with a stem from four to twelve feet high, according to the soil on which it grows, erect, smooth, leaves linear, flexuous, graceful, curling down at the end like corn; flowers in a panicle at the top, at first green, changing gradually to yellow." In the report of the Department of Agriculture for 1878, whence we take our engraving, it is spoken of as a "perennial

is now being tested in the Western States. It is killed to the ground by frosts, but where the cold is not too severe it starts again in the spring from its sturdy roots.

"WHAT quantities of dried grasses you keep here, Miss Stebbins! Nice room for a donkey to get into." "Make yourself at home," she responded, with sweet gravity.

LIGHT IN THE HOME.

The eminent English writer, Dr. Richardson, produces in one of our contemporaries, an article called "Health at Home," which is replete with wisdom. A most important point, and one on which he dwells, is the fact that so many people are afraid of the light. "In a dark and gloomy house you never can see the dirt that pollutes it. Dirt accumulates on dirt, and the mind soon learns to apologize for this condition because the gloom conceals it." Accordingly, when a house is dark and dingy, the air becomes impure, not only on account of the absence of light, but from the impurities which are accumulated. Now, as Dr. Richardson cleverly puts it, we place flowers in our windows that they may have the light. If this be the case, why should we deprive ourselves of the sunshine and expect to gain health and vigor? Light, and plenty of it, is not only a purifier of things inanimate, but it absolutely stimulates our brains. It is in regard to sick rooms that this excellent authority is particularly impressive. It used to be the habit of physicians in old times to sedulously darken the rooms, and this practice continues to some extent even to-day. In certain very acute cases of nervous disease, where light, the least ray of it, disturbs in over exciting the visual organs, this darkening of the room may be permitted, but ordinarily to keep light out of the room is to deprive the patient of one of the vital forces. Children or old people condemned to live in darkness are pale and wan, exactly like those plants which, deprived of light, grow white. Darkness in the daytime undoubtedly makes the blood flow less strongly and checks the beating of the heart, and these conditions are precisely such as bring constitutional suffering and disease. The suppression of the light of day actually increases those contagious maladies which feed on uncleanness. Dr. Richardson states: "I once found by experiment that certain organic poisons, analogous to the poisons which propagate these diseases, are rendered innocuous by exposure to light."

DR. STORRS ON WOMAN'S SPHERE.

In a glowing address before the Abbott Academy, Andover, Mass., at its fifth anniversary, Dr. Storrs said: "One of the most foolish questions ever asked is, what is going to be the sphere of woman when she is educated as proposed? The sphere? If she does not make her own we may stop prophesying. For six centuries women taught at Bologna, taught in mathematics, the classics, natural science, philosophy, the civil and the canonical law, anatomy and surgery, and medicine; taught when sometimes they must veil their faces lest the thoughts of the students should be distracted from the beauty of the subjects to the beauty of the speaker. Authorship is all open to woman in every department. Woman has been a physician since the days of the Iliad and the Odyssey. In France and in Russia to-day, as in the mediæval time, women are freely received into the ranks of medical practitioners and often instructors. In England and America it is going to be so. I do not know about the ministry, though it is a scandal in parishes sometimes that the minister's wife writes the most brilliant passages in his discourse. I stopped writing mine long ago, lest that should be said about me. * * * 'Is woman to have the suffrage?' I do not know. If she wants it she will have it, as the revolution of the earth. I remember that Spain in her grandest time had the government of a woman, the blue-eyed Isabella, the Catholic, gentle and strong, under whom this continent was discovered. * * * I remember that as far as any monarch governs in England, or ever will, England has the government of a woman to-day, who was our steadfast friend in the long agony and under the heavy gloom of civil war; whose virtue, whose intelligence, have commended her to the admiration and honor of every American heart,

while the name of Victoria continues. * * The fact is, that woman, from Isabella down, have a prescriptive right to this continent, and the only wonder to any thoughtful man is, that they are willing to let men live here at all. So if they want the suffrage they will be sure to have it, and I do not know but when it comes it will be the precious amethyst that drives drunkenness out of politics."

HOME THOUGHTS.

Some one has written truly: "If life is not all you would have it, seek to make it better and more enjoyable yourself; for at best life is what we make it." We cannot always put aside the difficulties that we meet with, nor entirely escape the trials that seem so thickly scattered along life's pathway. We cannot always walk in clear sunshine, nor would it be well for us to do so. These beautiful warm days are enjoyed all the more because of the cold, disagreeable weather that preceded them. Hard times are not pleasant, but when the good times come, who does not enjoy them more because of the difficulties that have been gone through? And it is the same in the inner life: because of the dark days that have gone before, the days of peace are all the more peaceful. But the dark days are too often darker than is necessary, because of the continual brooding over the troubles that present themselves, and constantly bringing them before others. I do not deny the right to crave and ask for sympathy from those we love; but too often are "mountains made out of mole hills," and when the "mountains of trouble" really come, we have not the strength of will to meet them squarely, and we sink before the difficulties that come to us, with only half an effort to lighten if not remove them. If each day was begun with the determination to be cheerful, to speak pleasantly to every one met during the day, to dismiss our own troubles with as little depressing thought about them as possible, and to encourage others to do the same, there would be more sunshine in the home and in the heart than one who has never tried it might think.

No matter how gloomy and dull you feel when you rise, leave your room with the determination to speak a pleasant "Good morning," to all you meet, and before breakfast is over the dull feeling will be gone. Like causes beget like effects, and you cannot be cross or surly and expect every one to be pleasant to you all the time. So if you wish those about you to be pleasant, cheerful, gentle and kind, to think of something beside their pet grievances, do you set the example, and it will not be long until your actions are copied. No one who ever meets another human being has a right to be morose and disagreeable, because of the influence he exerts over that human being. Surely our lives will be more pleasant, if we do all in our power to make the lives of those around us pleasant; but if we persistently avoid trying to make life "better and more enjoyable," it will be scarcely a life, but rather a wearied existence through which we will be obliged to pass. Then for your own sakes as well as for those about you, "be not weary in well doing."—*Elma, in Rural Press.*

A SOLID FAMILY.—John R. Chapman, of Oneida Lake, New York State, is the father of nine sons, of the following dimensions:

Name.	Age.	Weight.	Height.
John R., Jr.	35	200	5 ft. 9½ in.
Isaac H.	34	170	5 ft. 10 in.
William L.	32	189	5 ft. 10 in.
Thomas P.	30	187	5 ft. 9½ in.
Charles F.	28	193	5 ft. 9½ in.
Edward W.	26	201	6 ft. 1 in.
George W.	24	228	6 ft. 1½ in.
H. Seymour	22	205	6 ft. 1 in.
Fred A.	19	167	6 ft. 1 in.

Total weight, 1,740 pounds; average weight, 198 pounds. Total height, 53 feet 3 inches; average height, 5 feet 11 inches.—*Exchange.*

TRANSMITTING COLORS BY TELEGRAPH.

Dr. H. E. Licks, of Old South Bethlehem, Pa., after three years' labor, claims that he has perfected an instrument by which forms and colors can be sent by wire the same as words are sent. He calls the instrument a diaphote. The word diaphote, from the Greek, *dia* signifying through and *photos* signifying light, has been selected as its name, implying that the light traveled through or along a wire. He read a paper on his invention before a scientific society.

The diaphote consists of four essential parts, the receiving mirror, the transmitting wires, a common galvanic battery and the reproducing speculum. The Doctor gave a detailed account of the many experiments undertaken to determine the proper composition and arrangement of the mirror and speculum. In the diaphote exhibited, the mirror was 6 inches by 4, and had 72 fine wires, which were gathered together in one about a foot back of the frame, the whole being finely wrapped with an insulated covering, and on reaching the receiving speculum each little wire was connected to a division similarly placed as in the mirror. From a common galvanic battery wires also ran to each diaphotic plate, and thus a circuit was formed which could be closed or not at pleasure. The theoretical action of the instrument appears now to be the following: The waves of light from an object are conducted through the ordinary camera, so that they fall on certain of the divisions of the mirror when the electric circuit is closed. The light and accompanying heat produce momentary chemical changes in the amalgam of the mirror—which consists of a peculiar compound of selenium and chromium. These changes modify the electric current and cause similar changes in the corresponding partitions of the remote speculum, thus reproducing a similar image, which, by a second camera, may be readily seen by the eye or thrown upon a screen. Dr. Licks explained how the proportions of selenium in the mirror and speculum should be scientifically adjusted to the size of the divisions and the resistance of the electric circuit, so as to avoid any blending of the portions of the reproduced image. This, he said, had been the problem which had caused him the most difficulty, and which at one time had seemed almost insurmountable.

At the close of the paper an illustration was given of the powers of the instrument. The mirror of the diaphote, in charge of a committee of three, was taken to a room in the lower part of the building and the connecting wires laid through the halls and stairways to the speculum on the lecturer's platform. Before the mirror the committee held, in succession, various objects, illuminating each by the light of a burning magnesium wire, and simultaneously on the speculum appeared the secondary images, which for exhibition to the audience were thrown on a screen considerably magnified. An apple, a penknife and a trade dollar were the first objects shown; on the latter the outlines of the Goddess of Liberty were recognized, and the date of 1878 was plainly legible. A watch was held five minutes before the mirror, and the audience could plainly perceive the motion of the minute hand on the screen, but the movement of the second hand was not satisfactory seen, although Prof. Kannich, by looking into the camera, thought that it was there quite perceptible. An ink bottle, a flower and a part of a theater handbill were also shown, and when the head of a little kitten appeared on the screen, the club testified its satisfaction by the most hearty applause. After the close of the experiments the scientists extended their congratulations to Dr. Licks, and the President made a few remarks on the probable scientific and industrial applications of the diaphote in the future. With the telephone and the diaphote it might yet be possible for friends, separated by the wide Atlantic, to hear and see each other at the same time; to talk, as it were, face to face.

INSTINCT.

Most naturalists, writes Mr. Charles Darwin in *Nature*, appear to believe that every instinct was at first consciously performed; but this seems to me an erroneous conclusion in many cases, though true in others. Birds, when variously excited, assume strange attitudes and ruffle their feathers; and if the erection of the feathers in some particular manner were advantageous to a male while courting the female, there does not seem to be any improbability in the offspring which inherited this action being favored, and we know that odd tricks and new gestures performed unconsciously are often inherited by man. We may take a different case, (which I believe has been already advanced by some one), that of young ground birds which squat and hide themselves when in danger, immediately after emerging from the egg; and here it seems hardly possible that the habit could have been consciously acquired just after birth without any experience. But if those young birds which remain motionless when frightened were oftener preserved from beasts of prey than those which tried to escape, the habit of squatting might have been acquired without any consciousness on the part of the young birds.

This reasoning applies with special force to some young wading and water birds, the old of which do not conceal themselves when in danger. Again, a hen partridge, when there is danger, flies a short distance from her young ones and leaves them closely squatted; she then flutters along the ground as if crippled, in the wonderful manner which is familiar to almost every one; but, differently from a really wounded bird, she makes herself conspicuous. Now, it is more than doubtful whether any bird ever existed with sufficient intellect to think that if she imitated the actions of an injured bird, she would draw away a dog or other enemy from her young ones; for this presupposes that she had observed such actions in an injured comrade and knew that they would tempt an enemy to pursuit.

Many naturalists now admit that, for instance, the hinge of a shell has been formed by the preservation and inheritance of successive useful variations, the individuals with a somewhat better constructed shell being preserved in greater numbers than those with a less well constructed one; and why should not beneficial variations in the inherited actions be preserved in like manner, without any thought or conscious intention on her part any more than on the part of the mollusk, the hinge of the shell of which has been modified and improved independently of consciousness.

THEN AND NOW.

Owing partly to the improvement in tools and shop appliances, and partly to the system of subdivision of labor, there is no parallel by which the workman of to-day can be gauged or compared with the workman of thirty or forty years ago. Then the apprentice was taught—crudely, perhaps, but still taught—all the mysteries of his calling, from the preparation of the crude material to the finish of the completed result. The carpenter hewed his timber from the tree trunk or limb by means of chalk line and broadax. He bored, and mortised, and cut tenons, erected the frame of the building, boarded and shingled, and clapboarded and lathed. The blacksmith shod horses and oxen, tired wheels, made bolts and nuts, chipped and filed and drilled, forged and tempered axes and chisels, and performed numberless jobs of a variety of forms and for a variety of purposes. The machinist sometimes made his own patterns and often his own tools, worked at the vise and the planer, the lathe and the forge, and was

ready to undertake any job, from repairing a broken stove to building an engine.

Now, timber is sawed and not hewed; mortises and tenons are machine cut; houses are built by the shinglers, the lathers and the joiners, as well as by the carpenters; and the doors, windows, window and door frames and sashes are factory built. The horseshoer does nothing else. The forger of steel seldom works iron. The tool maker is nothing but a tool maker. The machinist is a bench man, a lathe man, a planer, a fitter, or he has a specialty in cotton machinery or woolen, or never works but on steam machinery.

It cannot be expected that the man who has worked only in a certain department will be entirely at home in others; but, on the other hand, he who has worked at all branches will not be likely to be an expert in any one branch. In versatility and in contriving makeshifts, he who learned his trade when the arts were young, and performed a portion of all the work, is better than the specialist; he may be an invaluable man in a crisis. But the lather can prepare a room for the plasterer with much greater rapidity and in better shape than the carpenter who turns from making a door to lathing a room. The tool forger can temper steel better than the blacksmith who turns from the forging of a mill crank to the tempering of a turning tool. The machinist who has worked for years on steam engines can sooner put a disabled engine to work than one who learned his trade at building cotton machinery. In the one case, the man is an expert; in the other, simply a workman.—*Scientific American*.

CONCERNING carbon bisulphide, which has, for some time past, been gradually attaining to a state of importance in the useful arts, Prof. Mallet gave some interesting facts in his review recently, of the industrial applications of chemistry, published in the *American Chemical Journal*. After noticing that, in the ordinary practice of manufacture, a large quantity of free sulphur is covered over with the sulphide, which requires to be separated by means of subsequent refining, and recommending, to avoid this, the passage of the mixed vapors through a second and even a third retort containing glowing carbon, he gives a number of interesting facts respecting its industrial uses. At first, this compound was used in the arts almost solely by the manufacturers of rubber; but it has lately acquired considerably increased importance, as furnishing the means of dissolving out fats and oils from various materials which could not be treated with equal advantage in any other way. Thus, for example, from oil-seed cakes, from the marc of olive-oil pressing, from woolen rags and waste, from cotton waste used in wiping machinery and packing stuffing-boxes and the like, and from bones from which gelatine and phosphates are afterward to be made, large quantities are extracted. It has also come to be used to some extent in the manufacture of the sulpho-carbonates used for the destruction of the phylloxera.

MOIST AIR NOT HEALTHFUL IN DWELLINGS. Briggs, the well-known engineer, maintains the theory that the summer condition of temperature, 62° to 68°, and relative humidity, 80% to 85%, is not desirable or attainable, at other seasons, in the heating of dwellings. His argument is, that the dry air of America possesses both curative and preventive qualities of great value, and that moist air, which promotes vegetable growth, is, on sanitary grounds, not desirable for breathing. He states that the dew point is far below the freezing point of water in well-warmed and ventilated rooms, where there is nothing of that sensation of dryness which is usually held to accompany the heat of a furnace when not supplied with water for evaporation. Again, new houses that are accounted unhealthy in Europe are not so in America, and gas burned in rooms produces much less unpleasant effects in America than in England. His views on this subject are fully set forth in the *Journal of the Franklin Institute*.

ZINCOGRAPHY FOR AMATEURS.

In a recent paper read before the London Society of Arts, Mr. Thomas Bolas, F. C. S., described zincography as a simple and easy mode of printing in the following fashion: Zincography, he said, is similar to lithography, except that a zinc plate is employed in the place of the lithographic stone. The so-called transfer paper is merely a moderately fine paper which has been brushed over, on one side, with a mucilaginous mixture, prepared by boiling together the following: Water, 1,000 parts; starch, 100 parts; gamboge, 6 parts; glue 1 part. This paper is written upon with the ordinary commercial lithographic writing ink, which has been rubbed up with water like an artist's water color. The writing being dry, it is necessary to moisten somewhat the back of the transfer by means of a damp sponge; after which it is laid face downward on a sheet of ordinary roofing zinc, which has been previously cleaned by means of emery cloth. Both being now passed together under the roller of a small press, the transfer adheres to the metal plate; but on damping the back of the paper it becomes easily removable, leaving the writing on the zinc. The face of the zinc plate is now gently rubbed over with mucilage of gum arabic, which is all the better for being slightly sour, and the excess of gum having been sponged off, an India rubber inking roller charged with ordinary printer's ink, is passed over the still damp zinc plate a few times. The ink takes only on the lines of the transferred writing, and it is merely necessary to lay a sheet of white paper on the plate and to pass both through the press to obtain an impression—an exact reproduction of the original writing. Any number of copies can be printed by repeating the operations of damping and inking. The zincographic process, thus simplified, is rapid, economical and within the reach of every one.

LONG AMERICAN BRIDGES.

Since the disaster of the Tay bridge there has been some uneasiness felt as to the safety of some of the iron and suspension bridges in this country. Many of them have spans much longer than those that fell into the Firth of Tay, the destroyed spans being only 245 feet long. The bridge nearest home, and one in which Baltimore is especially interested, is that over the Susquehanna river at Havre de Grace. It has 13 spans, each over 270 feet long. It was completed in 1866 of wood, and when nearly finished a large portion of the superstructure was blown down. Since 1876 the wooden portion has been replaced with iron by the Phoenix and Edgemoor iron companies, the work being accomplished without any interference with the freight and passenger traffic of the Philadelphia, Wilmington & Baltimore railroad. The draw section of the bridge will be replaced with iron within a month or two, when it will sustain its character of being one of the longest iron railroad bridges, as it was previously one of the longest wooden bridges. The truss bridge at Cincinnati has a span of 513 feet; that over the Hudson, at Poughkeepsie, has five spans of 500 feet, and the piers are 135 feet above the high water level. The bridge across the Missouri, at Leavenworth, has three spans of 340 feet each. The span of the bridge that gave way at St. Charles, Mo., in consequence of the cars leaving the track, was 320 feet, and it has two others of 406 feet each. The bridge at St. Louis has one span of 500 feet and two of 515 feet each. The suspension bridge at Cincinnati has a clear span of 1,075 feet, while the bridge over the East river, at New York, exceeds that length, having a span of 1,595 feet. Since the Tay disaster there have been so many inquiries as to the safety of this structure when exposed to the force of a gale of wind, that the engineers interested have made reassuring statements. It is asserted that a gale of 100 miles an hour would bring a force equal to 1,506 tons, while there would be a sustaining force of 4,124 tons.—*Baltimore American*.

CARPET WOOLS.

Col. F. D. Curtis, of New York, recently wrote an article for the *Rural New Yorker*, on the production of carpet wools in this country, from which we quote as follows: In order to get the long staple required for their work, our carpet manufacturers are obliged to select their wool from almost every wool-producing country in the world. Russia furnishes considerable and so does Asia Minor. Every pound of carpet wool could be produced in our own country. There are vast districts in the Southern States not now utilized which are capable of feeding millions of sheep. The yield of wool per head may be increased by crossing the Mexican sheep with the Cotswold. The former are light shearers, not averaging more than three pounds, probably less. Each cross is good for an extra pound of wool, and the cross-bred sheep are said to adapt themselves to the fare and habits of the natives without much detriment. We would not advise more than two crosses, which would change the natives to three-quarters Cotswold. The Cotswold is a sheep of very different form from the Mexican, as the latter are more leggy and much lighter in the quarters, thinner on the backs and not generally so muscular or inclined to fat. The natives live a nomadic life, and their form of body is the outgrowth of it, while the Cotswold shape or contour is a form molded by quiet. These opposites cannot be blended to the extinction of either extreme without changing the nature and characteristics of one or the other breed. Where the new animal must follow the same habits of life as one of the originals, it must conform to the type of the one it supplants, or it will be a failure. A Merino sheep graded up to a Cotswold will be ill adapted to follow the nomadic and uncertain life which seems so natural to the semi-wild sheep of the Southwest. Crossing with the Mexican would thicken the fleeces of these long and loose-wooled sheep, but it would at the same time change its character from coarse to medium, and it would no longer be carpet wool, as it would lack the length of staple which adapts it to the purpose. We should like to see every carpet-loom in America supplied with wool of our own raising. This would cover the plains with flocks and give employment to thousands who are now idle, and place our manufacturers beyond the risks of foreign contingencies. Unpeopled regions would be busy with the evidences of life and thrift, and the income of the country would be largely augmented.

These coarse and light-wooled sheep are not suited to the changing and severe climate of the North, but are best adapted to regions where the seasons vary but little, and extremes of heat and cold do not occur. They will do better on coarser feed than the Merinos or their grades, and on this account are better fitted for the wild grasses of the prairie and all uncultivated lands. For such pasturage they should be graded with the Cotswolds, as they too will bear coarser feed than the fine-wooled breeds. The lambs will be stronger, and the loss much less than with the latter. They are large milkers and will nourish their young better under rough treatment. The raising of the young is as important in the year's income as the wool. Where the winters are trying and the herbage is finer and shorter, grading with Merinos is the best, as they will be less liable to disease, their close fleeces shutting out both wind and storm in a much more effectual manner. Merinos never do well in low damp lands; but have a natural fitness for upland and mountains, while Cotswolds do best in valleys.

A Young princess asked her mamma the other evening how it was she and her brothers and sisters prayed for their daily bread instead of for bread enough for a week or month. One of the young princes had a reason ready: "It's so that we may have it now."

EYE-SIGHT.

Milton's blindness was the result of overwork and dyspepsia.

One of the most eminent American divines having, for some time, been compelled to forego the pleasure of reading, has spent thousands of dollars in value, and lost years of time, in consequence of getting up several hours before day, and studying by artificial light. His eyes never got well.

Multitudes of men or women have made their eyes weak for life by the too free use of the eye-sight, reading small print and doing fine sewing. In view of these things, it is well to observe the following rules in the use of the eyes:

Avoid all sudden changes between light and darkness.

Never begin to read, or write, or sew for several minutes after coming from darkness to a bright light.

Never read by twilight, or moonlight, or of a very cloudy day.

Never read or sew directly in front of the light, or window or door.

It is best to have the light fall from above, obliquely over the left shoulder.

Never sleep so that, on the first waking, the eyes shall open on the light of a window.

Too much light creates a glare, and pains and confuses the sight. The moment you are sensible of an effort to distinguish, that moment cease, and take a walk or ride.

As the sky is blue and the earth green, it would seem that the ceiling should be a bluish tinge, and the carpet green, and the walls of some mellow tint.

The moment you are prompted to rub the eyes, that moment cease using them.

If the eyelids are glued together on waking up, do not forcibly open them, but apply the saliva with the finger—it is the speediest diluent in the world—then wash your face and eyes in warm water.—*Exchange.*

This has been going around for about ten years, and its ownership, we guess, is lost; but it is good enough to go on indefinitely.

ARTIFICIAL FUEL.

In France they use for fuel a material which is ostensibly tablets of pressed peat, but which is more generally made of stable sweepings, it is said. Similar mottes, made of camel's dung, are used for cooking in Algeria and all over the oasis of Sahara, for wood is there too scarce to be used for fuel. The motté makes a clear, odorless, sootless, and almost smokeless fire. All early overland emigrants to California must be familiar with the "buffalo chips" which formed such excellent material for fuel—they were natural mottes, similar to those above referred to.

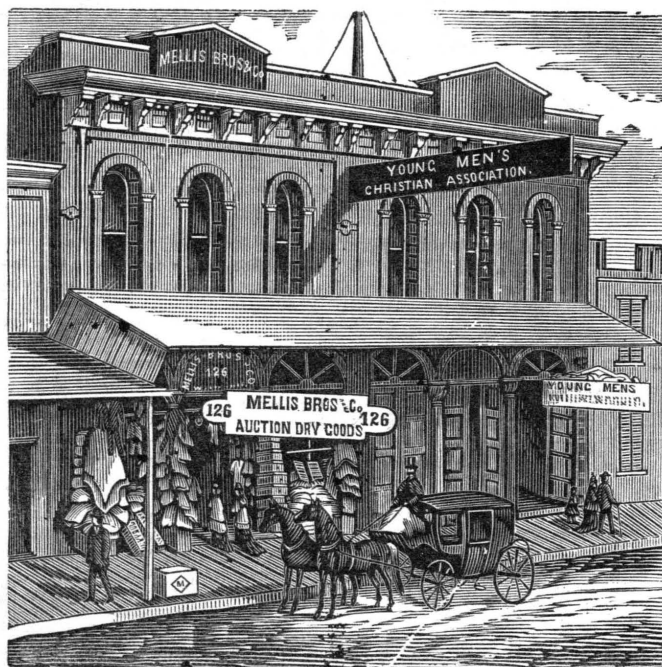
Compressed peat in London, and indeed in all the large towns of Great Britain and Ireland, is rapidly coming into use. The cakes there are made in great blocks, while the French mottes are only about six inches long by four wide and two thick. On the Belfast and Northern railway of Ireland the compressed peat has been tried with great satisfaction. The engineers report that 21 pounds of peat raises steam for a mile of transit, 26 pounds of coal being required to do the same work. They prefer it, moreover, because so clean to handle and so light compared to coal. Its cost is less than one-half that of coal. "In the manufacture of gas," says our *Scientific American*, "as compared with coal, its illuminating powers are tested and put down at 342 to 100. So the rich and practically inexhaustible bogs of Ireland promise to bring back prosperity to that country. The drying and compressing of this substance render its transportation cheap and easy, and as it is superior to wood in many respects, and less expensive, there is no apparent reason why it should not be very extensively used. A charcoal is also manufactured of the Irish peat, and the compressed cakes are in great demand for land fertilizing."

THE INFLUENCE OF THE ELECTRIC LIGHT UPON VEGETATION.

At a recent meeting of the Royal Society, of London, Dr. C. W. Siemens, F. R. S., gave a detailed description of some experiments upon the above subject which have been conducted during the last two months at his house at Sherwood, and exhibited specimens. The method pursued was to plant quick-growing seeds and plants, such as mustard, carrots, swedes, beans, cucumbers and melons, in pots, and these pots were divided into four groups, one of which was kept entirely in the dark, one was exposed to the influence of the electric light only, one to the influence of daylight only, and one to daylight and electric light in succession. The electric light was applied for six hours each evening, from 5 to 11, and the plants were then left in total darkness during the remainder of the night. The general result was that the plants kept entirely in the dark soon died; those exposed to the electric light only or to daylight only thrived about equally; and those exposed to both day and electric light thrived far better than either, the specimens of mustard and carrots exhibited to the society showing the difference in a very remarkable way.

Dr. Siemens only considers himself as yet on the threshold of the investigation, but thinks the experiments already made are sufficient to justify the following conclusions: 1. That electric light is efficacious in producing chlorophyll in the leaves of plants, and in promoting growth. 2. That an electric center of light equal to 1,400 candles placed at a distance of two meters from growing plants appeared to be equal in effect to average daylight at this season of the year; but that more economical effects can be obtained by more powerful light centers. 3. That the carbonic acid and nitrogenous compounds generated in diminutive quantities in the electric arc produce no sensible deleterious effects upon plants enclosed in the same space. 4. That plants do not appear to require a period of rest during the twenty-four hours of the day, but make increased and vigorous progress if subjected during daytime to sunlight and during the night to electric light. 5. That the radiation of heat from powerful electric arcs can be made available to counteract the effect of night frost, and is likely to promote the setting and ripening of fruit in the open air. 6. That while under the influence of electric light plants can sustain increased stove heat without collapsing, a circumstance favorable to forcing by electric light. 7. That the expense of electro-horticulture depends mainly upon the cost of mechanical energy, and is very moderate where natural sources of such energy, such as waterfalls, can be made available. The paper gave rise to a highly-interesting discussion, in which it was pointed out that the evidence afforded of the practical identity, as regards vegetation, of solar and electric light, besides the probability that it would be turned to immediate account by horticulturists, would afford great facilities for the scientific investigation of the influence exerted by light, as compared with other agencies, in promoting the formation of the active principles or most valuable constituents of plants, such as the quinine of the cinchona bark, the gluten of wheat and so forth. Before concluding his observations, Dr. Siemens placed a pot of budding tulips in the full brightness of an electric lamp in the meeting room, and in about forty minutes the buds had expanded into full bloom.

ALARM.—His Reverence—"I was sorry not to see you at church this evening, John!" John—"Lor' you fritens a body so, sir!" His Reverence—"My mission is to alarm the unconverted, John." John—"Tian't that, sir; you zed in your sarment this mornin' that 'twas no use trustin' to the common taters, and I never plants no other soart; so I've a-bin down to the tater field to see 'ow they be lookin'. Mine be all right, so vur. You shouldn't friten a body so, sir."



**Diagram of the Interior of Mellis
Bros. & Co.'s Salesrooms.**

OUR FOREIGN CORRESPONDENCE.

DUBLIN, IRELAND, }
Feb. 28, 1880. }

TO THE EDITOR OF THE WEST SHORE:

Hardly a home package comes to hand without bringing me files of the various leading American newspapers filled with details of the destitution and suffering among the laboring classes here, in consequence of the wide-spread dearth of meats and breadstuffs.

It is by no means a pleasant thing to make a tour of the infected counties and districts of this Island during the severe ordeal through which so many thousands of families are now passing; but I had determined to see and know the situation, and so far as personal observation has gone during a few weeks past, I have no hesitation in saying that the cable dispatches convey to the people of the United States no more than a truthful account of matters as they now actually exist.

A generous American, born and reared in a country where these tribulations are unknown, must needs almost transform himself into a veritable Shylock to pass unmoved through some of the rural districts I have visited within the last few days.

You may have seen in the papers a letter lately written by the Duchess of Marlborough to the Lord Mayor of London, on the subject of the present great Irish movement which is now engrossing so large a share of public attention. While, in the main, the writer is hopeful as to the probable turn of coming events, a couple of sentences in that communication tell their own doleful story, and it is useless for English politicians to strive to gainsay the terrible import which they imply.—Says the noble correspondent—"There is dire destitution in the mountainous parts and on the sea coast. There is great need of clothing and seed."

Sick at heart, as late scenes have rendered me, and for some time undecided as to how or what I should write in treating of these things, it affords me pleasure to have my own statements corroborated and endorsed by such high authority as the writer of the above letter. The din and turmoil encountered at every turn in a great city like this goes far towards disqualifying a tourist from properly realizing the abject squalor which confronts him every hour of the day. Here, ten times more

than in any American city I ever visited, appears that wonderful conglomeration of wealth and poverty, moral integrity, crime and misery. The general plan upon which is based the social superstructure of the people in town, city and country, differs essentially from that in Scotland and England. It would require another letter to describe in detail the various conflicting elements which go to make up the great sum total of Irish society. A few hints in this direction will have to suffice for the present. I may as well say, before going any further, that the real cause of the present destitution and suffering, as well as of former dearths and famines, must be sought for elsewhere than in the natural failure of the potato crop, staple and paramount as this article of food has become to the great bulk of the population. As your people may already have gleaned from current events, the unequal apportionment of arable lands, and what is technically called "absenteeism," are the two great evil powers which manipulate the whole matter. Either of these were a frightful calamity to any country, but the former is the greater of the two. Ireland, with all its insular dependencies, has an area of only about thirty thousand square miles. But, notwithstanding its high mean latitude, the wonderful indentation of its shore line, its rugged topography and its bogs, this beautiful island has, for centuries, been under a high state of cultivation. Let an American farmer, then, think for one moment, of all this land, in effect, owned in fee simple and haughtily monopolized by a few score of persons to whom it has descended without let or hindrance.

No man born and reared under a republican form of government sees anything either divine or humane in such an arrangement. Of course, well-fed and florid-complexioned English and Irish noblemen would utterly fail to see the gist of such an assertion. As was Christ crucified to the Jews and Greeks, this saying would be to the one a stumbling block and to the other, foolishness.

Bad as must be such a state of things in the abstract, the addition of absenteeism is like another turn of the thumb-screw to the poor culprit already racked by the throes of excruciating torture.

From such statistical authorities as I have been enabled to examine, it appears that no more than eight foreign

companies and corporations own about 149,000 acres of the agricultural lands in this island, assessed at an annual valuation of £76,000. When I say *foreign* companies and corporations, I mean that not one of them has its principal place of business located in Ireland. The grand head center of most, if not all of them, is either in London or Liverpool. Again, less than thirty non-residents of Ireland own 930,000 of its broad acres, bringing in an annual income of more than half a million pounds sterling, or two million and five hundred thousand dollars. Many of these land proprietors are comparatively young men; fox-hunting, cock-fighting and bull-baiting spendthrifts; maintaining expensive establishments within the realm, or wherever on the continent it may please them and their dissolute retainers to sojourn. It is to be understood that the figures just stated relate only to some of the principal absentees. Many wealthy and similarly unscrupulous proprietors live in wanton luxury upon or near their own estates. Thus, to support one such establishment, there is required an army of laboring hinds, each reserving for himself and family barely space enough for a mud house of one room, a pig-sty and potato patch.

The fairest land the sun shines upon could ill afford to maintain the *regime* which exists, to-day, among the wealthy classes of this country, and hence are the lower and middle classes of poor Ireland bankrupt in everything save moral and physical degradation and misery.

To the people of the Pacific States and Territories, these things afford not only a wholesome lesson, but they convey a most solemn warning. Especially is it incumbent on the people of California, Oregon, and Washington Territory to see well to it that they admit not within their borders large land proprietors. This famous business of farming on a large scale is worse than farcical; it is sure to expand into a chronic disease, the diagnosis of which reveals an unmistakable incubus type. It is well known that California is already declining under the premonitory symptoms of the malady, and so let the Northwest Pacific be forewarned and it will be fore-armed.

As has been intimated, I have purposed to give, in a subsequent letter, some of the details of the social and political machinery now at work here, grinding the people down to a degree of abject wretchedness which no pen-picture can adequately set forth. I am not the tenth cousin to a politician or statesman, and so venture no prediction as to the ultimate result of the wide-spread movement now in progress both here and in England. The finger of God is evidently in the work and there are many reasons for being hopeful of the future.

ORIENT.



No. 7138.

YOUNG, BUT THRIVING.

"OMNES PROSINT"--HEALTH FOR ALL.

The Original Oregon Botanical Remedies.

Prepared Only by Wm. Pfunder, Operative Chemist.

Why we, the people of the Pacific Coast should any longer be pestered with worthless nostrums, made fifty years ago east of the Rocky Mountains, and that too, by persons who never even knew chemistry by its name proper, much less its wonderful workings. This question suggested itself years ago to Wm. Pfunder, the only operative chemist in Oregon. The result was that this gentleman applied himself to a great and tedious research of the different vegetations, growing in immense quantities, especially in Oregon, but shedding—until his discoveries—all their virtues from year to year to mother earth. His tedious researches, scientific applications, and proper combinations, culminated in the production known to-day as the **OREGON BLOOD PURIFIER**, *Progressu, labore et scientia, extractum concentratum, nominis Pfunderii Oregoniense formetur.*

Experience makes the master. Having had experience with very difficult medicines, chemicals, etc., for over 25 years, and having mastered them all through hard study, both here, and in the East and in Europe, we can confidently recommend our **Botanical Remedies**, because we have extracted, nay "wrenched" from the very heart-strings of hidden nature, all that is good and beneficial to suffering humanity, and leaving the **Empty Shells and Worthless Leaves** to imitators, greed and inexperienced.

WM. PFUNDER'S OREGON BLOOD PURIFIER will positively be found a valuable remedy for chronic constipation, affected kidneys, dyspepsia, liver complaint, rheumatism, scrofula, and all other diseases having their origin in impure blood.

[One of Many.] **ROSEBURG, Oregon, January 23, 1880.** A few bottles of your indeed valuable medicine, called **PFUNDER'S OREGON BLOOD PURIFIER** have entirely cured my Rheumatism of 10 years standing, and other acquaintances speak very highly about it, performing a cure in every instance. Such a blessing should be made known to all sufferers, hence I make the above statement.

LYMAN PAGE, Esq., Contractor, 25 years a resident of Portland, says: For 12 years I suffered from liver complaint—tried everything. Cured with 6 bottles of **PFUNDER'S OREGON BLOOD PURIFIER**.

I read about it, tried it, and am still using it when occasion requires. What? The **OREGON BLOOD PURIFIER**! Such are the words of one of our lady lecturers. All ladies will understand what is meant.

For shame young man! Get a bottle of **PFUNDER'S OREGON BLOOD PURIFIER**. Use it; those pimples will leave your otherwise finely shaped forehead. And you, too, young lady; you also try a bottle of this really invigorating remedy, and regain that natural bloom on your sweet face, which no paint or powder can impart.

The cause of general debility removed in a short time, rapid gaining of flesh, improved complexion and good health. I sold my last bottle of **Pfunder's Oregon Blood Purifier** to Doctor Angee of this place, whose wife has been suffering from general debility for over one year, although the Doctor tried his best to cure her. After using your remedy the patient felt better, so much so that the doctor wants one dozen of this truly good medicine, which please send in my care at once. This is an extract received from Mr. Boos, Forest Grove, Oregon.

I, Frederick Ruegg, of Multnomah county, State of Oregon, certify herewith that **Wm. Pfunder's Oregon Blood Purifier** has entirely cured me of a skin disease, produced by poison oak. Although I had applied to several physicians for relief, none of these gents could do me any good, and I herewith recommend the **Oregon Blood Purifier** to all suffering with such skin diseases. Signed: F. RUEGG.

Sea Sickness—I used to dread it—a sea voyage; but now, since I take **Pfunder's Oregon Blood Purifier** I do not feel the least inconvenience. Use a dose or two before going on board and same after leaving vessel.

Look at him—that sallow sole leather face—that dull red rimmed eye—that slouching walk—yes, look at him well. He is a dyspeptic. Now look at this one: Elastic step, bright eye, healthy complexion—how is this? Well, he uses **Pfunder's Oregon Blood Purifier** and nothing else.

Mountain fever of years standing cured without the use of Quinine in a short time. Read and admire: I have been suffering from mountain fever for years. My physicians told me the only chance of my getting better would be a change of climate. Accidentally I came across a bottle of **Pfunder's Oregon Blood Purifier**, used it, and following directions by using a bottle of the S. S. S. Fever and Ague Mixture in addition, I am perfectly healthy now, and thus capsized the theory of my physicians. **GEORGE GREEN, Mail Carrier, U. S.**

Ladies in that delicate state—ever to be revered—but ever creating nausea, will find speedy relief by using **Pfunder's Oregon Blood Purifier**.

Pfunder's S. S. S. (safe, sure, speedy) Fever and Ague Mixture Certificate. I suffered some time with, what I was told, malarial fever, accompanied with pains in my head, back, in fact, felt pains all over. Not getting any better after using all kinds of medicines, I tried **PFUNDER'S FEVER AND AGUE MIXTURE**, and since gained rapidly in health. **MARIE WEISER, Seventh and C streets, Portland.**

The different Constitutions. The Constitution of the United States, that master piece of human brain. How is your constitution? If bilious, use **Pfunder's Oregon Blood Purifier**, the triumph of modern science.

THE PEOPLE'S CHOICE—Tonic—Bitters, sugared sarsaparilla, watered bad whiskies and pills made B. C.—hard as rock, are the cause, the reason, that to-day our people suffer more from liver complaint, poor digestion, etc., than any other nation. The idea of giving our working population such trash, and magnifying that trash by calling it ferrated (or iron containing) medicine; here, where nature's products are abundant, and very nutritious. Eat our Columbia River salmon; that splendid beef derived from cattle feeding on bunch grass; those vegetables at once healthy and within the reach of everybody, and then laugh at those puerile efforts of ignorant, inconsiderate parties trying to force iron into your system. All you want—you, who constitute the mass of the people is, to get your liver into working order, and there is no other or better remedy than **PFUNDER'S OREGON BLOOD PURIFIER**. Price, per bottle, one dollar. Five dollars for half a dozen.

Your Druggist has it or will get it for you. "The Original." Insist upon having it!

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A three-year-old little girl was taught to close her evening prayer, during the temporary absence of her father, with, "And please watch over my papa." It sounded very sweet, but the mother's amazement may be imagined when the child said, "And you'd better keep an eye on mamma, too."

I. G. Davidson, the photographer, at the southwest corner of Yamhill and First streets, takes beautiful life-like pictures at prices within the reach of all. His views of buildings, fine stock, steamboats, or indoor views of rooms, cannot be excelled anywhere, as he employs for this special work one of the most noted artists on the Pacific Coast.

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 PASSENGERS LEAVE PORTLAND FOR DALLES, UMATILLA, WALLULA and WALLA WALLA—Daily, (except Sunday,) at 5 A. M.

FOR LEWISTON and points on Snake River—Monday, 19th; Tuesday, 20th; Friday, 23d; Saturday, 24th; Wednesday, 28th; Thursday, 29th, at 5 A. M.

FOR KALAMA, TACOMA and SEATTLE—Daily, (except Sunday,) at 6 A. M.

FOR VICTORIA—Wednesday and Saturday at 6 A. M.

FOR ASTORIA—Daily, (except Sunday,) at 6 A. M.

For Cathlamet, Bay View, Skomokoway, and Brookfield—Monday, Wednesday and Friday, at 6 A. M.

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10 CTS. will pay for that valuable relic, a copy of the "Oregon Spectator," dated Oregon City, Feb. 5, 1846—the first number of the first newspaper ever printed on the Pacific coast. Address L. Samuel, Portland, Oregon.

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E. N. ANGEL, Collector.

THOS. VARWIG, Plumber, Gas and Steam Fitter, And dealer in Lead and Iron Pipe, Copper Bath Tubs, Copper Balls, Copper Boilers, Brass Cocks, Closet Bowls, Patent Closets, Marble Basins, Rubber Hose. No. 73 Washington St., be. Third and Fourth, PORTLAND, OREGON.

Every Physician, whose name appears in this column, is a graduate of a reputable Medical College.

H. Carpenter, M. D.

(Late of Salem.)

OFFICE—First and Morrison street, up-stairs.
Residence—375 Fourth Street, corner of Montgomery.

Wm. B. Cardwell, M. D.

OFFICE and Residence—Southwest corner First and Morrison streets.

J. A. Chapman, M. D.

OFFICE—Stowbridge Building, corner First and Alder.
Residence—Cor. First and Market.

F. B. Eaton, M. D.

(Diseases of Eye and Ear.)

OFFICE—Northwest corner First and Morrison streets.
Residence—Corner East Park and Yamhill.

E. P. Fraser, M. D.,

OFFICE—Northwest corner First and Stark streets—Union Block.
Residence—274 Second street.

R. Glisan, M. D.

OFFICE—Stowbridge Building, corner First and Alder streets.
Residence—Northwest corner Tenth and B.

R. G. Rex, M. D.

OFFICE and Residence—Southwest corner First and Morrison streets.

Curtis C. Strong, M. D.

OFFICE—No. 3, Dekum's Building.
Residence, 225 West Park street.

W. H. Saylor, M. D.

OFFICE—Rooms 1, 2 and 3, Union Block, cor. First and Stark streets.
Office Hours—9-10 a. m., 1-4 and 7-8 p. m.

Holt C. Wilson, M. D.

OFFICE—151 First Street.
Residence—Corner Fourth and B Streets.

R. B. Wilson, M. D.

OFFICE and Residence—Corner Fourth and B streets.

Something New!

AT

JOHN A. BECK'S,
The Watchmaker and Optician,
149 Front Street, - - PORTLAND, OR.
BIFOCLE SPECTACLES,

For near and far-seeing—TWO FOCUS IN ONE GLASS—in gold, silver and steel frames. Don't fail to see them.

Also, a fine line of American Watches, gold and silver cased, direct from the East, at prices that will defy competition. Watch work a specialty, and guaranteed to give satisfaction.



SMITH & ALDEN,

Dentists

167 First St., between Morrison and Yamhill,
Portland, - - - Oregon.

GRAND OPENING OF New Spring Goods

AT
J. F. D. WRINKLE & CO'S.

We are offering immense quantities of
NEW GOODS
At Extremely Low Prices.

New Novelties in Dress Goods,
New Novelties in Hosiery,
New Novelties in Buttons,
New Novelties in Fringes,
New Novelties in Laces & Ruchings.

**FINE FRENCH
BL'K CASHMERES,**

All Wool, 50c per yard.

2-Button French Kid Gloves,
50c, worth \$1.25.

4-Button French Kid Gloves,
75c, worth \$1.50.

The Largest Stock of

Hamburg Edging in the city.

BLEACHED TABLE DAMASK,
All Linen, 50c per yard.

A Large Stock of HOUSE FURNISH-
ING GOODS at wholesale prices.

J. F. D. WRINKLE & CO.,

221 First Street,

Cor. of Salmon St., Portland, Oregon.

J. S. KELLER,
Butcher and Packer,

DEALER IN

Beef, Pork, Mutton, Veal, and Corned
Meats of all Kinds,
Cor. First and Madison Sts., PORTLAND, OR.

A. H. JOHNSON,
Stock Broker, wholesale Butcher and
Packer, and dealer in all kinds of
Fresh and Cured Meats, Bacon,
Hams and Lard.

Special Attention given to supplying Ships.
Stalls 26, 27 and 28, Central Market.
Portland, Oregon.



Will be mailed FREE to all applicants, and to customers without
ordering it. It contains four colored plates, 600 engravings,
about 200 pages, and full descriptions, prices and directions for
planting 1500 varieties of Vegetable and Flower Seeds, Plants,
Roses, etc. Invaluable to all. Send for it. Address,
D. M. FERRY & CO., Detroit, Mich.



J. I. CASE & CO.

Racine, Wis.

Annually manufacture and sell more

THRESHING MACHINES

Than any other Firm in the World.

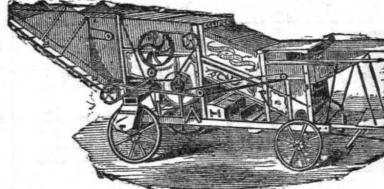


GOLD MEDAL at PARIS

Medal of Honor and Diploma
of Merit, at the

Centennial Exposition
PHILADELPHIA.

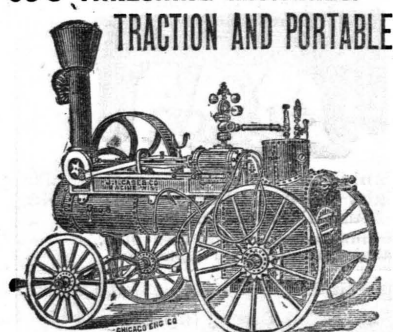
Highest Award and Silver Medal at
OHIO STATE FAIR, 1878.
First Premium Gold Medal
COLORADO. CALIFORNIA



Eclipse & Apron Machines

Will Thresh, Clean, Save per day more bushels of
Wheat, Rye, Oats, Flax, Timothy and Clover Seed
than any other Threshing Machine in the United
States.

Threshers and Farmers save your
Money by purchasing **J. I. CASE &
CO'S THRESHING MACHINES.**



**FINEST THRESHING ENGINES, 8-10-15 horse
power, Combining SAFETY, ECONOMY,
POWER, FINISH, STRENGTH.**

SPLendid List of HORSE-POWERS: Mounted
Pitts, 4-wheel Woodbury, 2-wheel Woodbury,
Down Pitts, Down Climax, one and two horse
Sweep, Tread Power.

**CATALOGUES WITH FULL PARTICULARS of
Improvements, etc., sent free on application.**

Also,

The J. I. CASE HEADER,

Very much improved for 1880.

Send for Price List and Circular.

Branch House, foot of Morrison St.,

Portland, Oregon.

G. W. STAYER, Manager.

S. HERRMAN,

Wholesale and Retail Dealer in

DRY GOODS, CLOTHING,
Boots and Shoes,
Groceries and Provisions,

No. 234 FIRST ST.,

PORTLAND, - - - OREGON.

Highest Cash price paid for Country Produce.



We are determined to push our cir-
culation to the highest possible point
within the next FEW weeks, and to
do this we offer to send the

Tribune and Farmer

EVERY WEEK FOR

2 MONTHS,

ON TRIAL,

ON RECEIPT OF ONLY

TEN CENTS.

Regular Price, \$1 Per Year.

THOMAS MEEHAN,

AGRICULTURAL EDITOR.

THE BEST OF AMERICAN HUMORISTS,

MOSE SKINNER, is a regular contributor to the
TRIBUNE AND FARMER, and his letters are
to be found only in these columns.

Contains each week **FOUR SPLENDID
STORIES COMPLETE.** No Continued Sen-
sational Matter admitted to our columns.
Full of Short Anecdotes, Ladies' Depart-
ment, Youths' Column, All the News, and
positively the **Very Best Agricultural Depart-**
ment to be found in any weekly in the United
States. Address,

Tribune and Farmer, Philadelphia, Pa.
Mention the WEST SHORE.

LENT & JENNE,

(Successors to J. H. FISK.)

**ASSAYERS
AND
METALLURGISTS**

No. 33 Stark Street, - - PORTLAND, OREGON.

Highest price paid for Gold Dust.

Tests made with care, and Analysis of all
kinds of Ores, Metals, etc.

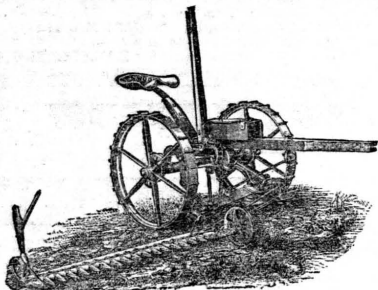
FRANK BROTHERS.

FARM AND MILL MACHINERY,

Full and Complete Line of Harvesting Machinery.

WALTER A. WOOD'S

New Enclosed Gear Mower.



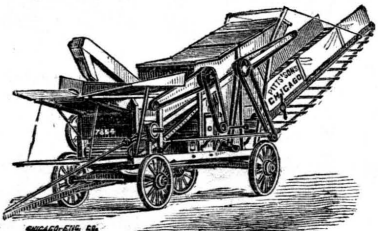
This Mower was brought out in 1878, and is already in use by more than 10,000 farmers. Its popularity is so great and the demand for it so active that we have, for the past two seasons, fallen largely short of filling orders.

No Gearing in Drive-Wheels, the Gearing being perfectly encased in the Frame.

Enclosed Gearing, insuring exclusion of all dust and dirt, and freedom from noise and jarring.

Height of Driving Wheels, 31 inches---from two to four inches higher than other Mower Drive-Wheels.

CHICAGO PITTS THRESHER.



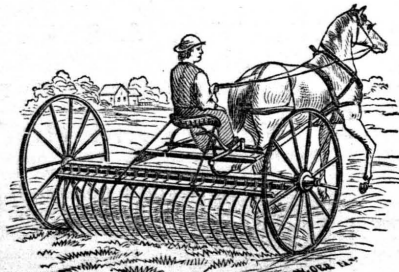
The "Chicago Pitts" Still Ahead.

Points of Superiority---Fast Threshing; Cleaning Capacity, Length of Shoe; Width of Shoe; Manner of Regulating the Upper and Lower Wind Boards, so that the Wind can be made to Strike any Desired Point on the Riddles; Raising and Lowering the Shoe; Manner of Setting the Teeth in the Cylinder; Delivering the Clean Grain; Durability; Capacity; Simplicity.

DIFFERENT SIZES.

- No. 1--Senior Separator, Cylinder 36 inches long; Apron 47 inches wide; Sieves 47 inches wide.
 No. 2--Senior Separator; 22-inch Cylinder; 43-in. Apron; 43-in. Sieves.
 No. 3--Senior Separator; 28-inch Cylinder; 30-in. Apron; 30-in. Sieves.
 No. 4--Junior Separator; 24-inch Cylinder; 37-in. Apron; 37-in. Sieves.
 Compare measurements with other machines.

Coates' Lock Lever Rake.



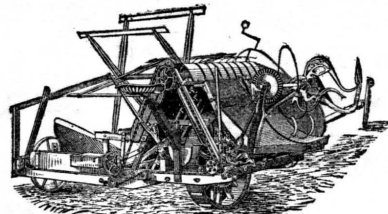
Well and favorably known by every farmer.

Black Hawk and Clipper Rock Island Plows, McSherry Seeders and Drills, LaBelle Wagons, Browne Gang and Sulky Plows, Improved Randall Harrow, Farm Engines, Saw and Flouring Mill Machinery, Wood and Steel Goods, Etc., Etc. Most complete line of all kinds of Machinery to be found on the Coast.

Send for Special Circulars and Catalogues---sent free to any address.

WALTER A. WOOD'S

Well known Harvester and Self-Binder.



First Premium Oregon State Fair. The most simple Self-Binder in the market.

Compressing the Bundle---The compressing of the bundles accomplished by the pressure of the iron arms, which adapt themselves to its size, instead of the wire itself--a feature not practically carried out by any other manufacturer. Other binders compress the bundles by means of tension on the wire; and with such Machines the result is that the operator, to avoid breakage of wire, must loosen the tension causing loose binding--or he must bind small bundles, in order to bind them tightly.

Amount of Wire Used---It binds large bundles more tightly than any other Wire-Binder; and it is the large bundles that require to be most firmly bound and at the same time save labor in handling. To illustrate this advantage: A bundle having a band one foot long contains less than one-fourth as much straw as a bundle having a band two feet long. A great saving is therefore attained by making the bundles as large as can be conveniently handled. This feature alone would make the Wood Binder cheaper than any other at half the price.

One Spool--one Tie---In forming the band, one Spool and one Tie are better than two, taking less wire and requiring less machinery to be looked after.

"Chicago Pitts" Improved Horse Power.

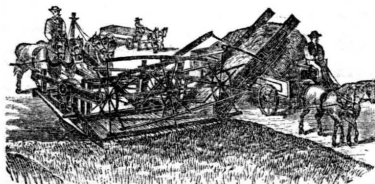


Adapted for any and all Separators.

With NEW LOCK or BRAKE ATTACHMENT, by which the Teams or Stock are stopped instantly if desired.

CHANGEABLE SPEED---The speed of our "Mounted" Horse Powers may be changed in a few minutes, at a trifling cost; two Spur Wheels only needed to convert our 75-speed Powers to run 80, 96, 100, 104, 110, to 128 revolutions of the Tumbling Rod to one round of the horses, or lower speed than 75 if required. Thus making them available to run Threshers of any make, Feed Mills, Wood Saws, etc.

Walter A. Wood's Header for 1880.



We call Farmers' attention to the following points:

- 1st. The Patent Iron Screw-Hub Wheel's
- 2d. The Chains used instead of Belts.
- 3d. Its Lightness of draft.
- 4th. Superior Quality of Timber used in the Frame.
- 5th. New and Improved Manner of Bracing the Frame.
- 6th. Perfect Balance attained.
- 7th. Superior manner of Lowering and Raising the Elevator.
- 8th. Adjustable Reel.
- 9th. Improved Rudder Wheel.
- 10th. Spring Balance.

FRANK BROTHERS,

142 and 144 Front St., Portland, Oregon.

TURNER, BEETON & CO.

Wharf Street, VICTORIA,

AND

36 Finsbury Circus, LONDON, ENG.,

Commission Merchants and Importers,

Agents for

Boutelleau & Co., Cognac Brandy,
 G. Preller & Co., Bordeaux Claret,
 Duff, Gordon & Co., Cadiz Sherry,
 M. B. Foster & Sons, London Ale and Stout,
 W. Jannesson & Co., Dublin, Whisky,
 De Lossy & Co., Rheims, Champagne,
 L. Rose & Co., London, Lime Juice Beverages,
 Etc., etc., etc.

Garesche, Green & Co.,**BANKERS,**

Government Street, Victoria, B. C.

Deposits received in Gold, Silver and U. S. Currency. Interest paid on the same on time deposits.

Gold Dust and U. S. Currency purchased at highest market rates.

Sight Drafts and Telegraphic Transfers on New York, San Francisco and Canada.

EXCHANGE ON LONDON, available in all parts of Europe, England, Ireland and Scotland.

Letters of Credit issued on the Principal Cities of the United States, Canada and Europe
AGENTS FOR WELLS, FARGO & CO.

Albion Iron Works,
VICTORIA, B. C.

Manufacture Steam Engines and Boilers, either high or low pressure, and
GENERAL MACHINE WORK.

Having started a **Stove Foundry** in connection with my works, I am prepared to furnish Stoves, equal in quality and finish to the imported article and at equally low prices.

JOSEPH SPRATT, Propr.

The steamers "Maude" and "Cariboo Fly," leave my wharf for Nanaimo, weekly.

FELL & COMPANY,

Importers and Dealers in

Groceries, Provisions,
FRUIT, ETC.

COFFEE AND SPICE MILLS.

General Italian Warehousemen,

Fort St., Cor. of Broad, Victoria, B. C.

All Shipping Orders completely and promptly filled and delivered per Express Van, Free of Charge.

Always ask for Fell's Coffee at the Mines.

W. & J. WILSON,

Government St., opposite the Postoffice,
 VICTORIA, B. C.

Importing Clothiers

And

General Outfitters.

Established since 1863.

WHAT DO YOU REQUIRE? FOR THE HARVEST, 1880. KNAPP, BURRELL & CO.,

33 and 35 Front Street, 32 and 34 First Street, - - Portland, Oregon,
DEALERS IN AGRICULTURAL IMPLEMENTS, &C.,

Sell the Bain Wagon, Hodges' Header with Improvements for 1880, Marsh Harvesters with Self-Binders, McCormick Harvesters with Self-Binders, Tiger Sulky Rake, Thomas' Sulky Rake, Buffalo Pitts Separators and Powers, Spring Wagons, Oliver Chilled Metal Plows, Moline Plows, Garden City Plows, Friedman Patent Harrows, La Dow Wheel Harrows, Broadcast Seeders and Cultivators, Garden Seed Drills, Horse Hay Forks, Champion Grain Registers, Pacific Fanning Mill, Straub Mills, French Burr Old Quarry Mill Stone, Mill Picks, Proof Stags, Smutters, Bolting Cloth, Rubber and Leather Belting, Scales, Churns, Cider Mills, Feed Cutters, Feysthes, Snaths, Cradles, Forks, Hoes, Road Scrapers, Canal Barrows, Grindstones and fixtures, Threshing Machines, Portable and Stationary Engines, Saw Mills, Saws, Fence Wire barbed and plain, etc. Reduced prices on Bolting Cloth and Grist Mill Machinery, of which we only keep the best quality. No second-hand or condemned goods in Stock. Have your Catalogue for 1879? If so, send name and address on postal card asking for **SUPPLEMENT AND PRICE-LIST FOR 1880. If you have not got the Catalogue for 1879, ask for it.**

GREAT REDUCTION

—IN—

PRICE OF CANDIES!**TO THE TRADE:**

The constantly increasing demand for our goods during the last year induced us to greatly enlarge our factory, and we are now prepared, and have decided to place our Candies at such prices that we feel confident the dealers in this State, Idaho and Washington Territories will find it to their advantage to patronize 'home industry.'

P. O. Box 64.

References required with first order. SEND FOR PRICE LIST. Respectfully yours,
ALISKY & HEGELE.
 Wholesale Candy Manufacturers and Confectioners, 145 First St.; Factory, 28 Alder St, Portland.

ESTABLISHED 1852.

SPORTSMEN'S EMPORIUM! William Beck & Son,

IMPORTERS AND DEALERS IN

Guns, Rifles and Revolvers, of Every Description.

Fine Cutlery,

Fishing Tackle,

Archery,

Hazard's Powder, of
 all kinds.

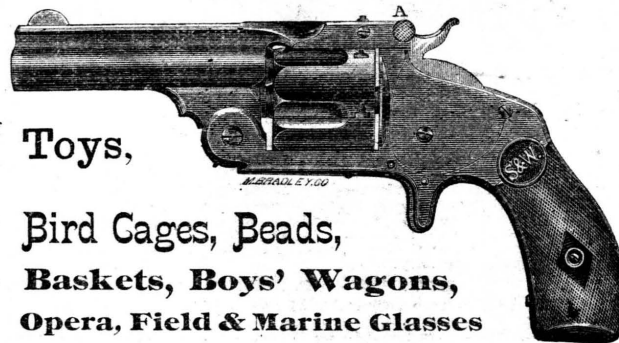
Croquet Games,

Base Balls,

Boxing Gloves,

Velocipedes,

Etc., Etc.,

Toys,**Bird Cages, Beads,****Baskets, Boys' Wagons,****Opera, Field & Marine Glasses**

Cor. Front & Alder and Third and Morrison streets, - Portland, Oregon.
 Those writing, please mention that you see this advertisement in THE WEST SHORE.

SHORT & SIMPSON, Gun and Rifle Makers,

And Importers of

English and American Fire-arms,
 Electro-plated Ware, Table and Pocket Cutlery,
 Fishing Tackle, etc.,

Fort Street, - - VICTORIA, B. C.

A. McLEAN & CO.,**General Outfitters,**

AND IMPORTERS OF

Gentlemen's and Boys' Clothing,

Fort Street, Victoria, B. C.

GLOVES, SHIRTS, UMBRELLAS, &c.

H. Hanson, NURSERY & SEEDSMAN.

Seedstore and office, 84 Front st., Portland, Ogn.
 Catalogues free. Nursery, East Portland.

NEW YORK HOTEL,

Deutches Gasthaus, 17 N. Front St., oppo ite
 Mail Steamship Landing, Portland, Or.

H. ROTHFOS & CO., Proprietors.

Board per week \$4; Board per week, with Lodging, \$5; Board per day, \$1; single meals, 25 cts. lodging, 25 cts.

Baggage conveyed to and from the House free of Charge. No Chinamen employed.

The Latest Styles of elegant
DRESS HATS can be had
 only at

Meussdorffer's Hat Emporium,



WE LEAD BUT NEVER FOLLOW !

We Originate, but Never Imitate!

As the public well know that since we have commenced to advertise all others have followed in our footsteps. The Public should not be deceived by those

SHOP GRABBERS WHO BLOW!

But whose lungs will only last for a short time, and who FALSELY REPRESENT that their *shops* are *Branch Stores* of the undersigned. But such is not the case—we have no connection with any other house in Portland, and have no branch stores, as represented by these Shop Grabbers, and our patrons should not be deceived by them.



NOW A WORD TO THE PUBLIC!

Advertising is very good in its way and is looked upon by all as success to business; but then, again, when persons advertise they should fulfill all they say and not deceive the public. How often do the storekeepers come out with glaring "ads" to the effect that they are having a large clearance sale, and the goods will be sold at a sacrifice? And in how many instances have the deceivers misled the public? They are not clearing sales, but simply dodges to entrap the public.

Within the last two months the Shop Grabbers and others have resorted to all devices to obtain custom; such as "One Price Only," "Closing out for new goods," "big signs," "army of clerks," "employing runners," "misguiders," and they advertise One Price, but are willing to take what you offer. The public should be on their guard. We could recite other instances whereby the public have been misled. We will expose their games and continue it without a single bar rest, and at the same time fulfill all we have now said or heretofore.

OUR LOW PRICES

Have been a crushing blow to them all. Our goods have been found to be as represented, and as we have but ONE PRICE TO ALL at our store and no deviation from it, leads us to do business but with little trouble and with satisfaction to both customer and dealer.

We are in constant receipt of NEW GOODS by every steamer in all lines and at prices to suit everybody.

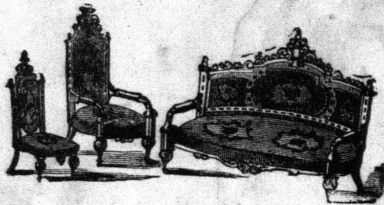
Farmers and Mechanics should consult their own interests by inspecting our large stock.

Send for Catalogues and Price Lists.

FARMERS' AND MECHANICS' STORE,
PORTLAND, OREGON.

THE WEST SHORE.

Established 1857.
G. SHINDLER, Portland.
F. S. CHADBOURNE, San Francisco.
SHINDLER & CHADBOURNE,
Wholesale and Retail Dealers in



FURNITURE and BEDDING,
Of Every Description,
Carpets, Oil Cloths, Mirrors, Wall Papers, Etc., Etc.
Front and First Sts., bet. Morrison and Yamhill,
Portland, Oregon.
Factory, Four Miles from East Portland.
For School Furniture, send for Catalogue.

If you desire to buy Books on any Subject, write to

J. K. GILL & Co.
WHOLESALE
BOOKSELLERS & STATIONERS

Portland, Oregon.

OLDS & SUMMERS
183 FIRST ST

CROCKERY, GLASSWARE,
Lamps, and Hero Oil.

Agents for Maddock's Semi-Porcelain Goods
acknowledged to be the best ware in the market.
Warranted not to crack.

Pacific Boot and Shoe House!

CHAMPLIN & HOLLABAUGH,

Importers and Dealers in

BOOTS AND SHOES.

THE LEADING
Boot and Shoe Dealers of the Pacific
Northwest,
109 First Street, Portland, Oregon.

Oregon Jewelry Manufacturing Co.

HENRICHSEN & GREENBERG,
149 First Street, . . Portland, Oregon.
Wholesale and Retail Dealers in

Watches, Diamonds, Jewelry, Silverware, Optical Goods, Etc.

Jewelry manufactured to order at short notice.
Watches carefully repaired.
Country orders solicited.
Chronometers rated by transit observation.

S. G. SKIDMORE & CO.,
DRUGGISTS,
151 FIRST STREET,
Portland, Oregon.

SAM'L LOWENSTEIN, President.

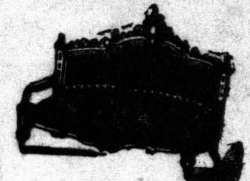
WM. KAPUS, Secretary.

OREGON FURNITURE MANUFACTURING CO.

SALES ROOMS,
Cor. First and Yamhill Sts.
Steam Factory,
Corner Front and Madison,
PORTLAND, O.



FURNITURE



Carpets, Oil Cloths, Mats, Rugs, Curtains, Wall Paper, Spring Beds,
HAIR MATTRESSES, &c. &c.

**OREGON
CARPET
WAREHOUSE**

WALTER BROTHERS,

Importers and Dealers in

Carpets, Floor Oil Cloths,

Paper Hangings and Upholstery Goods,

85 First Street, and 80 & 88 Second Street, **PORTLAND.**

MORE POPULAR THAN EVER!

431,167 Singer Sewing Machines!

Were sold in 1879, being at the rate of over

1,400 SEWING MACHINES A DAY!

for every business day in the year. The "Old Reliable" Singer is the strongest, simplest and most durable Sewing Machine ever yet constructed.

The Singer M'f'g Co., 186 First St., Portland.

MARTIN HECHT & CO.,

—IMPORTERS OF—

BOOTS AND SHOES,

Nos. 1 and 3 North Front St., Portland, Oregon.

L. BLUMAUER & CO.,

Wholesale and Retail

DRUGGISTS,

165 First St., and corner First and Stark Streets, **PORTLAND, OREGON.**

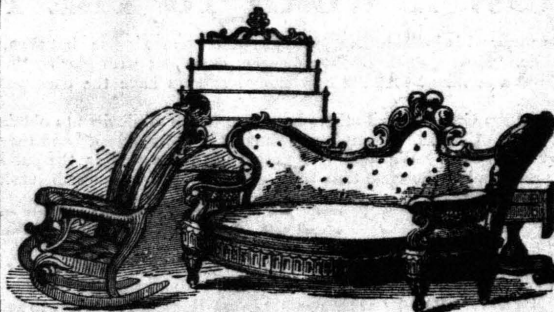
Headquarters for Elegant Toilet Articles, Surgical Instruments, Select Fancy Goods, Dentists Material, Fine Perfumery, Shoulder Braces, Etc., and an endless variety of Brushes, Combs, Soaps, &c. Manufacturers of Druggists' Specialties and "Premium" Flavoring Extracts.

Sole Agents—"ROSE PILLS."

I. F. POWERS,
Manufacturer, Importer and Jobber in
Furniture, Carpets,
Bedding,
And Paper Hangings.

Warerooms, 184, 185 First Street
and 184 Second St., Portland,
Oregon.
Steam Factory, N. W. cor. Front
and Jefferson Sts.

As I have just added to my already extensive stock, a very large assortment of new styles of Bedroom and Parlor Sets kept by no other establishment in this State, and the public is cordially invited to call and inspect stock



Knowledge

is power. To know how to advertise is a faculty that few possess. Lessons taught by Himes the Printer, 5 Washington St., Portland. He will also do long jobs and short jobs, at the lowest living rate.

Legal Blanks
Kept in Stock.