How Oilcloth Carpets are Made.

There is a large oilcloth manufactory in Salem, New Jersey. All the burlap on and of which oilcloth is made, is manufactured in Dundee, Scotland. It is made from an India grass. It is sized first, when it is ready for painting. It is not painted with brushes, but with a knife, a great long knife. The end of the burlaps is passed under the blade. When paint is ladled on the burlaps by the gallon, machinery takes hold of it and draws it between a roller and the knife, and the blade scrapes off all the superfluous paint as it passes through. No brush could lay the color on so evenly. They paint sixty yards of burlaps in a minute. Then when it is dry, it is sand-papered by machinery and other coats of paint go on. From four to nine coats of paint are put on, according to the quality of the oilcloth. It dries in a week, when it is ready for printing. This is the most interesting process. All the blocks from which oilcloth is printed in these, and with few exceptions, all the manufactories in the United States, are made in Hallowell, Maine.

The block is about eighteen inches square, and is made of three pieces; the inside block is pine, and the outside blocks are maple. The printing surface is sawed across at right angles with very fine saws, which work automatically, and don't need any superintendence after they have been started. When it reaches the factory, the surface of the block looks like a box of matches; the designer then paints his design on paper, lined out in tiny squares, a perfect duplicate of the block. In copying the design on the block, the operator works one block for each color, and the copying is done with a chisel, the operator cutting away all the little squares made by the saw, except those covered by the pattern. It is like worsted work, "four squares to the right, three staaight up, five to the right, three down and four to the left." The same old "three greens and then a brown" business. The designer is limited to few colors, and has to make the most of his combinations. These blocks are then fitted with handles, and the printers go to work. The palette is a great revolving table with pads of the different paints laid on it. Two men work at each table, and the operation of printing is like stamping letters at the mailing table in the post office. The printer slaps the block on the pad, and then strikes it on the oilcloth—first the white, say, and there is a scattering, meaningless, picture of little white squares; then the red is struck on, more little white dots that look like nothing; then the green, and you think you can see something like a leaf; then another shade, and another, until you see a cluster of leaves and birds in a figure outlined by a very distinct color, and the printing is ready for the "masher," which is a block just like the others, only all the squares left on, not one struck out. This is pressed down on the figures by a hand pressed down evenly and smoothly.

If the printer wants to give a square "pegged" appearance to the finish of the oilcloth, the masher is sawed both ways in the bunch of matches style. If he wants to "line" the finish, the masher he uses has only been sawed one way, and the oilcloth has a "lined" appearance on the surface. This work is all done by hand, guided only by gauges, but so perfectly is it done that the figures never lap and you will have hard work finding where the blocks join on your oilcloth. They print each day, at each table 120 yards of oilcloth. Then the cloth goes into the "ice house" to dry. The ice house is frozen by steam. Superintendent Dunn very kindly told me to put on my overcoat before I went in. I put it on, and when I got in there the thermometer marked 175 degrees above, and still a-going. I took off my overcoat. The cloth is then ready to varnish. This is done with brushes, fourteen brushes, which a man works with a crank. Here in these works they varnish 14,000 yards a week.

How He Put Up the Stove.

A short time ago an English emigrant family arrived in this Country, and being destitute of everything, a few kind-hearted people gave them sundry articles to help them to go to house-keeping, and among other things a stove. The donor forgot, however, to send along the necessary pipe. The day being very cold, the first thing which the father of the wondering flock turned his attention to was the making of a fire. With graetful eyes surveying the stove (the first he had ever seen), and then glancing at the stove-pipe hole in the chimney, which was about two feet from the ceiling, he wondered how the smoke could get up and out of that small hole. His eyes rested upon some hooks in the ceiling, which a former tenant had used for drying apples thereon, and he naturally came to the conclusion that they were intended to hang the stove upon. There was no time to be lost and so with the aid of chairs and table, and a good deal of exertion, the able-bodied man lifted the stove up so that the stove-pipe hole, which happened to be at the side of the stove, rested nicely in the chimney, while his better half lashed it to the aforementioned hooks with rope, which came around their scanty luggage. After every thing was secure the patient housewife hastened to prepare some wood wherewith to make a fire, while the perspiring father was designing in his perplexed mind some kind of a scaffold whereon his wife could stand to cook the frugal meal. But his ideas were overthrown by the sudden appearance of the donor of the stove, bearing the forgotten pipe. An explanation was in order, and after a hearty laugh, the bewildered Englishman was thoroughly initiated into the mysteries of the American way of putting up stoves.

New Foot Warmer.

A new foot warmer has been introduced for public comfort in cabs and other vehicles in France. A sheet-iron box is used with a sliding drawer, over which the air, which is admitted at one end, may pass before it escapes at holes in the other end. Into this drawer a briquette of pure compressed carbon raised to a red heat is placed, and it continues to burn there without giving forth any disagreeable odor, for about fourteen hours.

When is a man a "perfect brick?" When he shows himself all the more manly the harder he is pressed.

AGRICULTURE.

Torture of Horses.—Among the every day torments to which the horse is subjected we will enumerate the following:—1 Abroded breast. 2. Inflamed back from defective saddle or harness pad. 3, Sore mouth from a too tight gag rein, a severe bit, or both. 4. A sore tail from too tight or illy made crupper. 5. An abrasion under the body, caused by a too light or badly fitted belly band. 6. Irritation of the eyes from blinders being strapped too close together, or, on the other hand, are allowed to swing around, first striking one eye then the other. 7. Ears chafed by the brow band being placed too high, or by metallic rosettes with a sharp outer rim, the base of the ear pressing across this at every motion. 8. The excessive fatigue of all the structure of the neck under the influence of the bearing rein. The bearing rein, if made taut and kept so for any considerable length of time, is a source of great discomfort to all horses and an insufferable tormant to many. A taut rein can be used with entire propriety on horses of fine easy up carriage, especially while in motion, but if the muscles and the bony structure of the neck extend forward horizontally from an upright shoulder rather than striking out from a slanting shoulder, then the most intense suffering will be inflicted by straining the neck up to an angle entirely unnatural to the animal especially if this strain be long kept up. To strain a culprit up by the thumbs till only his toes touch the ground is certainly one of the severest admissible punishments that can be inflicted upon mortal, and the check rein is undoubtedly akin to it in its extreme application.

Hints About Killing Swine.—The rope should be small and strong, and have a good-sized ring to hold easily in the hand. Let the hog out of the pen, which is apt to be a hard place for a scuffle. Let the fat hog out and run. He will soon tire, and may be seized by a hind leg, the noose slipped over his snout and laid upon his back ready for sticking. The blood may be drawn by an insertion of the knife a little before the front legs directly down towards the spine. Any farther cutting is not only useless, but injures the meat. At the great slaughter houses the victims are dispatched by a single effectual stab. It is well to wash the hog before scalding. It saves time and rosin by putting rosin into water, by putting the rosin into the water, instead of dusting it over the bristles. An old worn up, round cornered hoe is the best tool to take off bristles. After one end of the hog is well scalded, scrape it about clean while the other end is under water. Don't forget that the animal heat must all be taken out before you salt your pork. Split the hog always through the ribs, and let him hang over night.

In southwestern Russia, between the Baltic and the Black Sea, the sunflower is universally cultivated in fields, gardens and borders, and every part of the plant is turned to practical account. A hundred pounds of the seed yield forty pounds of oil, and the pressed residue forms a wholesome food for cattle, as also do the leaves and the green stalks cut up small, all being eagerly eaten. The fresh flowers, when a little short of full bloom, furnish a dish for the table which bears favorable comparison with the artichoke. They contain a large quantity of honey, and so prove an attraction to bees. The seeds are a valuable food for poultry, ground into flour, pastry and cakes can be made from them, and boiled in alum water, they yield a blue coloring matter.—The carefully dried leaf is used as tobacco. The seed receptacles are made into blotting paper, and the inner part of the stock into fine writing paper; the woody portions are consumed as fuel, and from the resulting ash valuable potash is obtained. Large plantations of them in swampy places are a protection against intermitting fever.

The Flower Garden.—Most flower seed are good for more than one year. Asters, stocks and some other sorts are worthless the second season. Of some varieties, a portion will germinate the second year, but not a very high percentage. Such are phlox, verbena, and many others. Seeds saved in a favorable season, and properly dried, will of course remain good longer than those saved in an unfavorable year, or carelessly cured. As a rule, round seeds are good longer than thin, flat once, and many of the smallest are good as long as any. Old balsam seeds are generally acknowledged to be better than new. Last summer, in the garden of an old German lady, I saw some flowers from seeds brought from the old country sixteen years before. She had petunias, portulaccas and gourds.

Gypsum in Stables.—This article is admirable as a fertilizer upon clover, and an efficient absorbent of ammonia and purifier of the air of stables. It is well to sprinkle it over the floor of both horse and cow stalls as soon as they are cleaned out in the morning, and over the bedding at evening. When thus used its effects are just as good, and probably better than when applied alone upon the land.

Flat warts on the inside of a horse's leg may be removed by scraping off the top and applying muriatic with a small stick or camel's hair brush. They may be cut from a cow's udder and killed in the same way,

The annoucement is again made that a process has been discovered for taking photographs posessing all the brilliancy and delicacy of the natural colors, and an exhibition of pictures thus naturally colored has just been held in London. According to the reports, the colors are produced by the action of light alone in the camera, and owe nothing whatever to the artist's brush. In the photographs exhibited, the coloring appeared to be quite true to nature, and delicate tones and shades were clear to the view. The flesh tint was exact to life, and full justice was done to gorgeous regimentals. The protruded tongue of a dog in one of the photographs possessed the exact color of nature. Some of the guests, says the *English Mechanic*, inspecting this collection, and not fully acquainted with the character of the latest invention, took it for granted that the work was done by skilful, artistic hands on ivory and other material, and could scarcely believe their eyes when informed that the color, as much as the form and outline, was produced by the light of day. Careful and minute investigation, however, would then show that human handicraft was not in it; for there were touches and effects which nature's pencil of light could alone accomplish. The contention is that photographs colored by artists, however clever, must be more or less "monotonous, hard, untrue to nature and to the originals." The process was discovered, it is said, by a French scientist, but has since undergone improvement by the proprietor of the patent for England. If the new system prove an unqualified success, the reward will not have been reaped without much labor in the past; for numerous attempts have been made to induce the sun pencil to fix colors in the pictures it draws in the camera; but chemical and mechanical difficulties have stood in the way. In the new process colors are said not only to be faithfully produced, but protected from the action of light by being passed through a boiling solution, of which gelatine forms the principal ingredient and that some of the photographs so treated have been exposed for months to the sun without being, in any wise, affected by the ordeal. Unfortunately the process is as yet unknown, as it is likely to be for some time to come.

THE HOUSEHOLD.

The Importance of Vegetables.—The vegetable-eater can extract from his food all the principles necessary for the growth and support of the body, as well as for the production of heat and force, provided that he selects vegetables which contain all the essential elements named. But he must for this purpose consume the best cereals—wheat or oats; or the legumes—beans, peas, or lentils; or he must swallow and digest a large weight of vegetable matter of less nutritious value, and, therefore, at least containing one element in large excess in order to obtain all the elements he needs. Thus the Irishman requires for his support ten or eleven pounds of potatoes daily, which contain chiefly starch, of which he consumes a superfluous quantity, very little nitrogen and scarcely any fat; hence he obtains when he can some buttermilk or bacon, or a herring, to supply the deficiency. The Highlander, living mainly on oatmeal, requires a much smaller weight; this grain contains not only the starch but much nitrogen, and a fair amount of fat, although not quite sufficient for this purpose, which is usually supplied by adding milk or a little bacon to his diet. On the other hand, the man who lives chiefly or largely on flesh and eggs as well as bread obtains precisely the same principles, but served in a concentrated form, and a weight of about two or three pounds of such food is a full equivalent to the Irishman's ten or eleven pounds of potatoes and extras.

Improved Vinegar-Making Process.—The transformation of alcoholic liquids into vinegar has long been a matter of discussion. Pasteur holds that the formation of vinegar is a physiological phenomenon caused by vegetation of a particular bacterium, the Mycoderma aceti, while Liebig saw in it merely a chemical action of oxygen on alcohol. Recent observations by Herr Wurm, at the Breslau Institute of Plant-Physiology, are regarded as putting the former view beyond a doubt and Herr Wurm has succeeded in effecting the industrial manufacture of vinegar in accordance with Pasteur's idea. The conditions are a sowing of pure bacteria, a uniform temperature of 30 deg. C., and a well-regulated addition of alcohol. The process goes on in large covered wooden receptacles (with side holes for air) into which are put 200 litres of mixture of vinegar, water, and alcohol, along with some mineral salts (phosphates of potash, lime, magnesia, and ammonia). The manufacture is said to be considerably more rapid than that by the old method, and distinctly economical.

Barley Water.—Wipe very clean, by rolling it in a soft cloth, two tablespoonfuls of pearl barley; put it into a quart jug, with a lump or two of sugar, and a grain or two of salt, fill up this jug with boiling water and keep the mixture gently stirred for some minutes; then cover it down and let it stand until perfectly cold. In twelve hours, or less, it will be fit for use. After the barley water has been poured off once, the jug may be filled with boiling water a second time, and even a third time with advantage. If not unpalatable to the invalid, a strip of lemon peel, cut thin, may be added. A glass of calf's foot jelly is a great improvement.

Glycerine.—Glycerine is the sweet principle of oils, the base of compounds found in animal fats and also in some vegetable substances. It is a product of a process of saponification. As prepared by the pharmaceutists, it is taken up with boiling water from its mixture in a free state with the plumbiferous soap called lead plaster. The plaster is made by boiling together litharage (oxide of lead), olive oil and water. The oil is decomposed by the lead taking its acids, and the glycerine is thus liberated. The lead is got rid of by filtering, and the water is removed by evaporation, at a temperture below 212 deg., leaving the glycerine. Various other methods of preparing are in use.

Lemon Pickle.—Wipe six lemons, cut each into eight pieces; put on them a pound of salt, six large cloves of garlic, two ounces of horse-radish sliced thin, likewise of cloves, mace, nutmeg and cayenne, a quarter of an ounce each, and two ounces of flour of mustard; to these put two quarts of vinegar. Boil a quarter of an hour in a well-tinned sauce-pan; or, which is better, do it in a strong jar, in a kettle of boiling water; or set the jar on the hot hearth till done. Set the jar by, and stir it daily for six weeks; keep the jar close covered. Put it into small bottles.

Veal Cuttlets a la Milanaise.—Trim some veal cutlets into a uniform shape, and dip them in liquefised butter—that is, butter melted on the range. Then pass them through a mixture of equal parts of bread-crumbs and grated Parmesan cheese, properly peppered and salted. When set dip them in a beaten-up egg and pass them through the mixture again; then fry them brown. Boil a small quantity of maccaroni, dress it with butter, Parmesan cheese and tomato sauce, with the yolk of an egg stirred into it. Place the maccaroni on a dish, and the cutlets in a circle round it.

Chocolate Jelly a la Creme.—Soak a box of gelatine in a half pint of cold water. Heat a pint of rich milk on the range; then to one pint of cold milk put four large tablespoonfuls of powdered chaeolate and three-quarters of a pound of white sugar; make this mixture smooth, then add it to the hot milk when it has boiled up once. Flavor to taste with vanilla, and add to the gelatine, stirring briskly to mix it well. Dip a mould in cold water and pour in the jelly to set. Serve with whipped cream.

Dish Wiping.—I recently saw a new way of wiping dishes that saves half the risk, while the dishes look nicer and brighter. The only outlay required is a half bushel basket. Wash the dishes as usual and put them in a tin pan or pail; pour boiling water over them thoroughly, then set them edgeways in the basket so as to drain. The heat will dry them perfectly, and not a streak or particle of lint is to be seen. Five minutes will leave them perfectly dry. No one who tries it once will be likely to go back to the old way.

Liver Hash.—This is delicate and appetizing, and nice as a changes from the liver and bacon known to all cooks. Boil the liver until thoroughly tender—there must not be even a suspicion of hardness about it. Then mince it finely with a chopping-knife. Heat the mince very hot in a sauce or *roux* of butter and browned flour. The seasoning is pepper, salt, a dash of lemon, or a little piquant sauce, such as mushroom catsup.

Potato Duchesse.—Boil and pass through a sieve half a dozen fine potatoes. There must be no lumps. Add a gill of cream, the yolks of three eggs, pepper, salt, a little chopped parsley, and a hint of nutmeg. The mixture must be thoroughly smooth and well amalgamated. Take a tablespoonful at a time, form into a ball, brush the top slightly with beaten egg, and set them in the oven until lightly browned.

To Remove Tan.—New milk, half a pint; lemon juice, one-fourth of an ounce; white brandy, half an ounce. Boil the whole and skim clear from scum. Use night and morning.

WIT AND HUMOR.

Two girls belonging to church choir at Oshkosh got locked into the church the other night, while they were talking over the fashions. They gave the alarm, when a man living near the church put a board to the window and they slid down to the ground. The most singular thing was that after they had got safely to the ground they looked mad and went off without thanking the man, and they won't speak to the man when they meet him. He couldn't account for it until he went to take the board down, when he got slivers in his fingers, and scratched his thumb on a shingle nail that stuck up through the board. Some men are mighty careless. He says he don't care only for other hearts that may ache.

A certain young Boston bachelor, wealthy but modest, was taking his bath one morning when his telephone called him. He sprang from the tub and was horrified to hear that a lady, wife of a distinguished New York banker, was at the other end of the wire a mile away. It would never do for him to carry on a conversation with a lady in his present condition. "Excuse me. A thousand pardons!" he cried, aghast. He donned his dressing-gown and then repaired to the telephone and conversed without fear or molestation.

She wept, the poor laundress, on returning five shirts, where her patron had intrusted her with six, and confessed that she had burned a hole in the shirt while ironing. "Never mind," says the customer kindly; "Christmas comes but once a year, and that will be all right. How much do I owe you?" "Six shirts at twelve and a half cents—seventy-five cents." "But you burned one of them up."—"Well, suppose I did? Hadn't I washed it before I burned it? Go along wid ye, trying to chate a poor dissolute widow."

An old Vermont farmer came home drunk the other night, and became the victim of an irrepressible desire to get drunker. So he thought he would bring out his wagon and drive over to Shelburne Falls for more whiskey. Just as he was about putting the finishing touches on the harnessing arrangments he said to himself, "This horse has got horns!" He brought out his lantern and found he had harnessed the cow to the wagon. He muttered, "I'm drunk enough now," unhitched the beast and went into the house to sleep it off.

Honored and Blest.

When a board of eminent physicians and chemists announced the discovery that by combining some well known valuable remedies, the most wonderful medicine was produced, which would cure such a wide range of disease that most all other remedies could be dispensed with, many were skeptical; but proof of its merits by actual trial has dispelled all doubt, and to-day the discoverers of that *great medicine*, Hop Bitters, are honored and blessed by all as benefactors.—*Democrat*

"Yes, I'm going to skate," he answered as his teeth rattled together and his ears stood out like sheet-iron medals. "They tried to stuff me with a story of a boy who froze to death on the rink at the park, but I would not take it." "Did one freeze to death?" "Naw! Come to find out about it, he just froze his ears and nose and fingers and toes, and the rest of his body wasn't touched at all. They can't scare me with any of their tales of horror!"

A man in Burlington county, N. J., could not decide for whom to cast his vote at the late election, and he made it a subject of prayer. He then put the two opposing tickets in his vest pocket, went to the polls, pulled out one of the pieces of paper without looking at it, and voted it. On his return home he discovered that he had voted an order for a barrel of cider, He tried in vain to change his vote.

While the very young daughter of a country clergyman was playing in the garden one day a stranger came along and inquired if her father was at home. "No," she replied, "but my mother is in the house, and she will pray with you, you poor, miserable sinner."

The bashful young man who asked a lady on the beach if he "could see her home," was much surprised to hear her reply, "that he could go up and see it if he wanted to, but she didn't think her father wanted to sell," and then cooly walked off with the man of her choice.

Thousands will bear testimony (and do it voluntarily) that Vegetine is the best medical compound yet placed before the public for renovating and purifying the blood, eradicating all humors, impurities or poisonous secretions from the system, invigorating and strengthening the system debilitated by disease; in fact, it is, as many have called it, "The Great Health Restorer."

"Well, I have done one good deed to-day," said Billington. "What's that?" asked his friend. "I have given a poor, deserving man a new overcoat," replied Billington, turning about "How do you think it fits?"

Women have a great respect for old age. Watch a young lady seated in a 'bus between a young gentleman and an elderly one, and see how determined she is not to incommode the latter by squeezing against him.

Boarding house chicken soup can be made, it is said by hanging up a hen in the sun so that her shadow shall fall into a pot of salt and water. The only trouble is that on a cloudy day the soup is liable to be weak.

The only natural hair renewer is Carboline, a deodorized extract of petroleum, prepared without distillation or rectification with acids or alkalies, containing no mineral or other poisons, delightfully perfumed and as clear and pure as spring water.

It is said that the heart of a man weighs about nine ounces, that of a woman about eight. As the age increases a man's heart grows heavier and a woman's lighter. Some girls lose theirs at sixteen, while others have little or none to lose.

"What have you been drinking or eating?" exclaimed his wife as he returned late at night. "Liquor-ish!" he responded, and he winked at himself in the dark and breathed thin till she got asleep.

Rejected lovers need never despair. There are four-and-twenty hours in a day, and not a moment in the twenty-four in which a woman may not change her mind.

In weather like this you have your choice of two situations. You can stay out of doors and freeze to death, or you can cuddle about the stove and roast. There seems to be no happy medium.

"Why is it your loaves are much smaller than they used to be?" asked a man of his baker. "I don't know unless it is I use less dough than formerly," replied the baker.

1881 does not resemble a pair of lovers on a sofa, because there is one at each end.

The public are cautioned to ask for Dr. Bull's Cough Syrup, and take no other. Price 25 cents.

Pleasing Prospects Respecting the "Dollars of our Daddies."

A Boston journal contains the following, taken from one of the New York dailies: "In noting the departure for Europe of Mr. John W. Mackay, the California millionaire, our New York contemporary presents the following interesting particulars relating to the famous Comstock Lode, the camping ground, as it were, of more than one of the Pacific coast millionaires. There has been, no doubt, considerable of the 'wild cat' business in mining in one way or another, but with the following results and figures, which are unquestionably true, staring one in the face, it will readily be seen why the most far-sighted and knowing ones continue to pin their faith to and pan their profits from the above celebrated section. The north end of the ledge is now attracting especial attention, and from latest developments, those made in the Original Keystone mine—the latter running 1,800 feet on the main ledge, and according to the recent investigation and report of the English expert, John D. Barry, A. I. C. E., one of the most promising mines on the entire ledge—are particularly interesting and all the indications point to highly gratifying results.

"The celebrated Comstock vein or lode is situated in Story County, in the State of Nevada, on a chain of mountains called the Washoe Range, east of the Sierra Nevada, having a mean elevation of 6,000 feet above the level of the sea, Mount Davidson, the highest peak, reaching an elevation of 7,960 feet.

"The range begins near Carson City, running with a general direction of 22 deg. west of north for 150 miles.

"The whole region represents a great barren wilderness, where nature has denied all agricultural prosperity, but in her equity has stored probably the greatest amount of mineral wealth to be found in one locality in the world.

"During the last twenty years the Comstock vein has given sixteen bonanzas, from which 6,500,000 tons of ore have been extracted.

"The average assay value of this large mass was $56 per ton; it yielded in the mill $41.80, and from the treatment of sluices, $5—total $46. 80 per ton.

"Thus the total value of the ore extracted was $363,671.605, yielding a net sum from mills and sluices of $323,671,-605. The average proportion of precious metals in value is 45 per per cent gold and 55 per cent silver." *Chicago "Inter Ocean."*

To detect the presence of chiccory in coffee, the microscope examination is the best; but as this is not always possible, the following method may be employed: The coffee is spread on a sheet of white paper. The grains of coffee then present an angular appearance, while the chiccory has an amorphous appearance, and is of a darker color. When the suspected grains are picked out with a needle, the coffee grains will jump away or are split by it, but the chiccory grains, being softer, are easily punctured. The softer grains when crushed carefully between the teeth produces a gritty sensation like fine sand. If chiccory is present, its flavor is more of an acid bitter than the aromatic bitter taste of coffee. Chiccory in coffee may be thus roughly estimated: About two grammes of dried ground coffee are sifted in a hair sieve from the finest dust which consists of pure coffee; the larger grains are macerated for some hours with cold water, and then thrown on a piece of stretch cloth and rubbed with the fingers, when the chiccory is forced tarough, leaving the coffee grains on the cloth. The coffee is then collected, dried and weighed. The loss of weight gives the weight of the chiccory,

Card collectors please buy seven bars Dobbins' Electric Soap of any grocer and write Cragin & Co., Philadelphia, Pa., for seven cards gratis, six colors and gold. Shakespere's "Seven Ages of Man." Ordinary price 25 cents.

A Rain Tower.—Mr. Bell's rain tower is a charming little structure of stone, one hundred feet in diameter at the base, and tapering to sixty feet diameter at a height of one thousand feet. Above this rises a tubular tower of wood or iron, say five hundredfeet. It would not often be necessary to go above one thousand five hundred feet, Mr. Bell thinks, though that altitude might be exceeded if necessary. Of course there would be no risk of such a tower being blown down or crushing its foundation by its own weight. The interior hollow of the tower would have a diameter of twenty feet; and through it a vast volume of saturated air could be blown in the upper atmosphere by means of proper machinery at the base of the tower. In case that might not suffice to secure the desired precipitation of rain an additional uprush of air around the tower is obtained by means of numerous tubes leading upward and outward from the interior of the tower at an angle, say, of 45 deg. Similar tubes descending from the inside to the outside of the tower serve as inlets, the air let in through them being sucked in by the ascending current within the tower; then, after it has received "the upward impetus of the inside force," it will be ejected upward through the ascending tubes. "Thus," in the words of the inventor, "through every stratum of air pierced by this mammoth rotunda, the air surrounding the outside walls will be agitated by an upward influence," making the exterior ascension indefinitely exceed the interior. The inventor adds: "While these tubes, discreetly located at meteorological centers, would doubtless become reliable agenceis for the formation of clouds, it should be their faculty also to prevent rain; for by reversing the motion of the fan or blower, a descensional flow of air would begin, which might annihilate the clouds overhanging, by bringing them to earth in aeriform and holding them here [securely bottled of course!] until they be wanted in precipitation on some locality, then instituting the ascensional flow and send them up to be condensed." Mr. Bell suggests that a single timely rain would pay the cost of building a tower of this sort, "and a nation furnished with a reasonable number might prove them her wealth and grandeur."

By means of a highly ingenious carpet-weaving machine, recently introduced, it is found practicable to produce a carpet—a velvet pile, in appearance and quality said to be a most luxurious article—at a very low cost. The worsted yarns forming the face of the carpet are wound from ordinary bobbins the width of the carpet, the colors being arranged by a comb as the pattern requires. The ends are passed through metal tubes for delivery, and the bobbins in proper sequence are then fixed on an endless chain over the loom. As the chain revolves, metal clips seize each bobbin in turn, take it off the chain, and dip the ends of worsted among the warp threads of the carpet, where they are at once firmly fixed, and a circular knife cuts off the worsted at a proper level. The bobbin is returned to the chain, and the succeeding one dealt with, and so on, continuously.

During a recent ascent from Rouen a balloonist tried the experiment of photographing the land over which he was passing, and succeeded in securing a dozen or more finely executed views.

Among the late arrivals at the London Zoological Gardens is a mouse-eating spider. This gigantic insect is found in South American forests. It is covered with hair and has a body three inches long, with legs in proportion. Its natural food consists of mice and small birds.

A fool once more.

"For ten years my wife was confined to her bed with such a complication of ailments that no doctor could tell what was the matter or cure her, and I used up a small fortune in humbug stuff. Six months ago I saw a U. S. flag with Hop Bitters on it, and I thought I would be a fool once more. I tried it, but my folly proved to be wisdom. Two bottles cured her, she is now as well and strong as any man's wife, and it cost me only two dollars. Such folly pays.—H. W., Detroit, Mich.—*Free Press.*

S. Smosee, a Belgian engineer, proposes to utilize the safety-lamp for revealing the presence of fire-damp in collieries. It is well known that the flame of the lamp elongates and acquires a higher caloric power when in air which contains light carburetted hydrogen, or marsh gas. A piece of metal is so placed as to be elongated by this flame; this produces electric contract, and causes a bell to ring, several of these lamps should be placed in different parts of the mine and bells numbered.

There is Nothing Certain

except death and that is now rendered extremely uncertain by the discovery of an absolutely certain cure for the most painful of all bodily ailments, Piles. For 3,000 years, quacks and medical men have rivalled each other in torturing the miserable sufferers by that terrible disease with all manner of barbarous, ignorant and useless nostrums and devices, and might still have gone on for a thousand more years but for the discovery of Anakesis by Dr. Silsbee. We seldom puff such things, but any man or woman who has ever suffered the agony of Piles, will thank us for calling attention to an almost infallible remedy for this dreadful disease. 500,000 afflicted sufferers testify to its unparalleled virtues. Doctors of all medical schools endorse and use it. It is at once the triumph and admiration of the age; simple, safe, prompt and permanent, it relieves pain at once, supports and compresses the tumors and ultimately cures the worst cases of Piles, no matter of how long standing. Absolute infallibility is not possible, but medical science has nothing more nearly so than "Anakesis." It is the discovery of Dr. S. Silsbee, an accomplished chemist and practicing physician, after 40 years' study and experience. Samples of "Anakesis" are sent free to all sufferers by P. Neustaedter & CO., box 3946, New York. Sold by druggists everywhere. Price $1.00 per box.

The members of the Penn Mutual Life Insurance Company, of Philadelphia, cannot fail to derive satisfaction from a perusal of the Annual Statement published in another column. The business of the year has been most prosperous, being conducted, as all prior ones, with the sole object of providing reliable life insurance at the lowest possible cost, and achieving this result with the highest measure of success.

Kidney-Wort is a remedy which removes foul humors from the blood, and creates healthy action in every organ. Torpid kidneys and liver lead to gravel, diabetes, constipation, piles and rheumatism. Kidney-Wort is the surest and safest remedy to use. —*Courant.*

Vegetine

WILL CURE SCROFULA,

Scrofulous Humor.

Vegetine will eradicate from the system every taint of Scrofula and Scrofulous Humor. It has permanently cured thousands in Boston and vicinity who had been long and painful sufferers.

Pimples and Humors on the Face.

Reason should teach us that a blotchy, rough, or pimpled skin depends entirely upon an internal cause, and no outward application can ever cure the defect. Vegetine is the great blood purifier.

Catarrh.

For this complaint the only substantial benefit can be obtained through the blood. Vegetine is the great blood purifier.

Dyspepsia.

If Vegetine is taken regularly, according to directions, certain and speedy cure will follow its use.

Faintness at the Stomach.

Vegetine is not a stimulating bitters which creates a fictitious appetite, but a gentle tonic, which assists nature to restore the stomach to a healthy action.

Female Weakness.

Vegetine acts directly upon the causes of these complaints. It invigorates and strengthens the whole system, acts upon the secretive organs and allays inflammation.

General Debility.

In this complaint the good effects of the Vegetine are realized immediately after commencing to take it; as debility denotes deficiency of the blood, and Vegetine acts directly upon the blood.

Vegetine,

PREPARED BY

H. R. STEVENS, Boston, Mass.

Vegetine is Sold by all Druggists.

Dr. BULL'S COUGH SYRUP

HOSTETTER'S CELEBRATED

STOMACH BITTERS

Sleep, Appetite, Strength

Return when Hostetter's Stomach Bitters is systematically used by a bilious dyspeptic sufferer. Moreover, since the brain sympathizes closely with the stomach and its associate organs, the liver and the bowels, as their derangement is rectified by the action of the Bitters, mental despondency produced by that derangement disappears. For sale by all Druggists and Dealers generally.

$777 A YEAR and expenses to agents. Outfit Free. Address P. O. VICKERY, Augusta, Maine.

SEND 10 CENTS to C. W. PERLEY for a recipe to Kindle Fires Without Kindling Wood. WILLIMANTIC, CONN.

GREAT WESTERN GUN WORKS, Pittsburgh, Pa.

Send stamp for Catalogue. Rifles, Shot Guns, Revolvers, sent c. o. d. for examination

It pays Agents to Sell the Standard Agricultural Book

Farming for Profit

New, Accurate, Comprehensive. A Complete Farm Library in itself. A sure guide to successful farming. TELLS HOW TO Cultivate all Farm Crops. Breed & Care for Livestock. Grow Fruit, Manage business, Make Money And Secure Happiness. Saves many times its cost every Season. 860 pages. 140 Illustrations. Send for Circulars and terms to J. C. McCURDY & CO., Philadelphia, Pa.

Those answering an Advertisement will confer a favor upon the Advertiser and the Publisher by stating that they saw the advertisement in this journal (naming the paper).

KIDNEY-WORT

The Only Remedy

That Acts at the Same Time on The Liver, The Bowels and The Kidneys

This combined action gives it wonderful power to cure all diseases.

Why Are We Sick?

Because we allow these great organs to become clogged or torpid, and poisonous humors are therefore forced into the blood that should be expelled naturally.

KIDNEY-WORT WILL CURE

Biliousness, Piles, Constipation, Kidney Complaints and Diseases, Weaknesses and Nervous Disorders.

by causing free action of these organs and restoring their power to throw off disease.

Why Suffer Bilious pains and aches!
Why tormented with Piles, Constipation!
Why frightened over disordered Kidneys!
Why endure nervous or sick headaches!
Why have sleepless nights!

Use KIDNEY WORT *and rejoice in health. It is a dry, vegetable compound and* One package will make six qts of Medicine. *Get it of your Druggist, he will order it for you. Price, $1.00.*

WELLS, RICHARDSON & CO., Proprietors, (Will send post paid.) Burlington, Vt.

THIRTY-THIRD ANNUAL REPORT OF THE

Penn Mutual Life Insurance Co.,

OF PHILADELPHIA.

Net Assets, January 1, 1880		$6,842,462 24
RECEIPTS.		
Premium receipts	$1,070,972 57	
Interest receipts, etc	393,599 68	1,464,572 25
Total		$8,307,034 49
DISBURSEMENTS.		
Losses and endowments	$511,820 62	
Dividends to policy-holders	256,299 97	
Lapsed and surrendered policies, etc	128,926 29	
Commissions, salaries, medical fees, agency exp's, etc	186,621 12	
Taxes, legal expenses, advertising, etc	64,961 74	1,148,679 74
Net assets, January 1, 1881		$6,958,354 75
ASSETS.		
U. S. 5 per cent. bonds, Philadelphia and city loans, R. R. bonds, bank and other stocks, worth $2,941,783 50		$2,626,075 07
Mortgages, first liens on properties worth $6,217,730		2,342,456 47
Premium notes, secured by policies		602,176 82
Loans on collaterals, etc		322,119 40
Home Office, and Real estate bought to secure loans		715,796 97
Cash on hand and in Trust Companies		289,730 02
Net ledger assets, as above		$6,958,354 75
Net deferred and unreported premiums	$101,444 13	
Interest due and accrued	91,674 04	
Market value of stocks, etc., over cost	315,708 43	508,826 60
Gross assets, January 1, 1881		$7,467,181 35
LIABILITIES.		
Losses reported, but not due	$161,342 75	
Reserve, at 4 per cent., to reinsure risks	5,967,135 00	
Dividends on Life Rate End'ts and unreported policies	76,348 89	
Surplus 4 per cent. basis	1,262,354 71	$7,467,181 35
Surplus at 4½ per cent., Pennsylvania standard		$1,669,279 71
No. of policies in force		12,231
Amount at risk		$31,698,164 00

SAMUEL C. HUEY, President.
EDWARD M. NEEDLES, Vice-President.
H. S. STEPHENS, 2d Vice-President.
J. J. BARKER, Actuary.
HENRY AUSTIE, Secretary.
HENRY C. BROWN, Ass't Secretary.

New Music Books.

RHYMES (1.50). By Margaret Pearmain Osgood, Translations by Louisa T. Cragin. Emphatically a **household** collection, containing lullabies, nursery songs, kindergarten songs, and everything of the kind that musical mothers, sisters and all the children so dearly love, AND compiled from the best American and foreign sources, and, in many cases, having both foreign and English words. The songs have simple accompaniments. *Rhymes and Tunes* has already received most flattering notices, and bids fair to be a universal favorite. TUNES

Now Subscribe for the **Musical Record.** Try $1.00 for 6 months.

EMERSON'S QUARTETS AND CHORUSES **For Male Voices.** (60 cts., or $6 per dozen.) A capital collection of pieces, just made, and well fitted by their moderate compass and easy arrangement, as well as by their solid merit and great variety, for clubs and quartets that are now so rapidly increasing. The book is compact and may easily be carried in the pocket.

BEETHOVEN. Biographical Romance by Rau. $1.50.

ALBUM OF SONGS. ($2.00). By Rob't Franz. Authorized edition of ten of the very best of German Songs ever issued.

In Press.—A new Sunday School Song Book.

Any book mailed, post-free, for retail price

Oliver Ditson & Co., Boston.

J. E. DITSON & CO. 1228 Chestnut St., Phila.

NICHOLS, SHEPARD & CO

Battle Creek, Michigan,

MANUFACTURERS OF THE ONLY GENUINE

VIBRATOR

THRESHERS, Traction and Plain Engines and Horse-Powers.

Most Complete Thresher Factory in the World. Established 1848

32 YEARS *of continuous and successful business*, without change of name, management, or location, to "*back up*" *the broad warranty given on all our goods.*

STEAM-POWER SEPARATORS and Complete Steam Outfits *of matchless qualities.* Finest Traction Engines and Plain Engines ever seen in the American market.

A multitude of special features and improvements for 1881, together with *superior qualities in construction and materials* not dreamed of by other makers. Four sizes of Separators, from 6 to 12 horse capacity, *for steam or horse power.* Two styles of "Mounted" Horse-Powers.

7,500,000 Feet of Selected Lumber (*from three to six years air-dried*) constantly on hand, from which is built the incomparable wood-work of our machinery.

TRACTION ENGINES *Strongest, most durable, and efficient ever made.* 8, 10, 13 Horse Power.

Farmers and Threshermen are invited to investigate this matchless Threshing Machinery. Circulars sent free. Address

NICHOLS, SHEPARD & CO. Battle Creek, Michigan.

BUSINESS COLLEGE, Chambersburg, Pa. Papers free. "Most perfect possible."—U. S. Com'rs Report.

FOR SALE OR EXCHANGE FOR STOCK OF GOODS—Eighty-acre Improved Farm, 2 miles from City of Rochester, Minnesota. Will sell cheap. Address PHILIP LOEWE, Rochester, Olmstead county, Minn.

SKELETON on the WALL.

The greatest hit of the age. A ghastly, grinning skeleton, six feet high, will appear or disappear at the will of the operator. Its appearance is simply horrible. Any one that enjoys a joke at an evening party or among their friends should not fail to send for the SKELETON ON THE WALL. One by mail, 25c; five for $1.00; no stamps taken. Address W. H. BIGFORD, Toledo, Ohio.

ENCYCLOPÆDIA OF ETIQUETTE AND BUSINESS

This is the cheapest and only complete and reliable work on Etiquette and Business and Social Forms. It tells how to perform all the various duties of life, and how to appear to the best advantage on all occasions.

AGENTS WANTED.—Send for circulars containing a full description of the work and extra terms to Agents. Address NATIONAL PUBLISHING CO., Philadelphia, Pa.

Ladies Don't read this, but enclose a 3-cent stamp for "Important Information" to Dr. WM. C. HATCH, Box 20, West's Mills, Maine.

ALLEN'S Brain Food cures Nervous Debility and Weakness of Generative Organs, $1—all druggists. Send for Circular to Allen's Pharmacy, 313 First Ave., N. Y.

DR. RADWAY'S

Sarsaparillian Resolvent

THE GREAT BLOOD PURIFIER,

FOR THE CURE OF CHRONIC DISEASE, SCROFULA OR SYPHILITIC, HEREDITARY OR CONTAGIOUS,

Be It Seated In The Lungs or Stomach, Skin or Bones, Flesh or Nerves,

CORRUPTING THE SOLIDS AND VITIATING THE FLUIDS.

Chronic Rheumatism, Scrofula, Glandular Swelling, Hacking Dry Cough, Cancerous Affections, Syphilitic Complaints, Bleeding of the Lungs, Dyspepsia, Water Brash, Tic Doloreux, White Swellings, Tumors, Ulcers, Skin and Hip Diseases, Mercurial Diseases, Female Complaints, Gout, Dropsy, Salt Rheum, Bronchitis, Consumption,

Liver Complaint, &c.

Not only does the Sarsaparillian Resolvent excel all remedial agents in the cure of Chronic, Scrofulous, Constitutional and Skin Diseases, but it is the only positive cure for

KIDNEY AND BLADDER COMPLAINTS,

Urinary and Womb Diseases, Gravel, Diabetes, Dropsy, Stoppage of Water, Incontinence of Urine, Bright's Disease, Albuminuria, and in all cases where there are brick-dust deposits, or the water is thick, cloudy, mixed with substances like the white of an egg, or threads like white silk, or there is a morbid, dark, bilious appearance and white bone-dust deposits, and when there is a pricking, burning sensation when passing water, and pain in the small of the back and along the loins. Sold by Druggists. PRICE ONE DOLLAR.

OVARIAN TUMOR OF TEN YEARS' GROWTH CURED BY DR. RADWAY'S REMEDIES.

One bottle contains more of the active principles of Medicines than any other Preparation. Taken in Teaspoonful doses, while others require five or six times as much.

R. R. R.

RADWAY'S

Ready Relief,

CURES AND PREVENTS

DYSENTERY, DIARRHŒA, CHOLERA MORBUS, FEVER AND AGUE, RHEUMATISM, NEURALGIA, DIPHTHERIA, INFLUENZA, SORE THROAT, DIFFICULT BREATHING.

BOWEL COMPLAINTS.

Looseness, Diarrhœa, Cholera Morbus, or painful discharges from the bowels are stopped in 15 or 20 minutes by taking Radway's Ready Relief. No congestion or inflammation, no weakness or lassitude will follow the use of the R. R. Relief.

IT WAS THE FIRST AND IS

The Only Pain Remedy

that instantly stops the most excruciating pains, allays inflammations, and cures Congestions, whether of the Lungs, Stomach, Bowels, or other glands or organs, by one application, **in from one to twenty minutes**, no matter how violent or excruciating the pain the Rheumatic, Bed-ridden, Infirm, Crippled, Nervous, Neuralgic or prostrated with disease may suffer, RADWAY'S READY RELIEF will afford instant ease.

Inflammation of the Kidneys, Inflammation of the Bladder, Inflammation of the Bowels, Congestion of the Lungs, Sore Throat, Difficult Breathing, Palpitation of the Heart, Hysterics, Croup, Diphtheria, Catarrh, Influenza, Headache, Toothache, Nervousness, Sleeplessness, Neuralgia, Rheumatism, Cold Chills, Ague Chills, Chilblains and Frost Bites.

The application of the Ready Relief to the part or parts where the pain or difficulty exists will afford ease and comfort.

Thirty to sixty drops in a half tumbler of water will in a few minutes cure Cramps, Sprains, Sour Stomach, Heartburn, Sick Headache, Diarrhœa, Dysentery, Colic, Wind in the Bowels and all internal pains.

Travelers should always carry a bottle of Radway's Ready Relief with them. A few drops in water will prevent sickness or pains from change of water. It is better than French Brandy or Bitters as a stimulant. Price Fifty Cents per bottle.

Radway's Regulating Pills.

Perfect Purgatives, Soothing Aperients, Act Without Pain, Always Reliable and Natural in their Operation.

A VEGETABLE SUBSTITUTE FOR CALOMEL.

Perfectly tasteless, elegantly coated with sweet gum, purge, regulate, purify, cleanse and strengthen.

RADWAY'S PILLS, for the cure of all Disorders of the Stomach, Liver, Bowels, Kidneys, Bladder, Nervous Diseases, Headache, Constipation, Costiveness, Indigestion, Dyspepsia, Biliousness, Fever, Inflammation of the Bowels, Piles and all derangements of the Internal Viscera. Warranted to effect a perfect cure. Purely vegetable, containing no mercury, minerals or deleterious drugs.

☞ Observe the following symptoms resulting from Diseases of the Digestive Organs: Constipation, Inward Piles, Fullness of the Blood in the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust of Food, Fullness or Weight in the Stomach, Sour Eructations, Sinking or Fluttering at the Heart, Choking or Suffering Sensations when in a lying posture, Dimness of Vision, Dots or Webs Before the Sight, Fever and Dull pain in the Head, Deficiency of Perspiration, Yellowness of the Skin and Eyes, Pain in the Side, Chest, Limbs, and Sudden Flushes of Heat, Burning in the Flesh.

A few doses of RADWAY'S PILLS will free the system from all the above-named disorders.

Price, 25 Cents per Box.

We repeat that the reader must consult our books and papers on the subject of diseases and their cure, among which may be named:

"False and True."
"Radway on Irritable Urethra."
"Radway on Scrofula."

and others relating to different classes of diseases.

SOLD BY DRUGGISTS.

READ "FALSE AND TRUE."

Send a letter stamp to RADWAY & CO., No. 32 Warren, Cor. Church St., New York.

☞ Information worth thousands will be sent to you.

TO THE PUBLIC.

There can be no better guarantee of the value of Dr. RADWAY'S old established R. R. R. REMEDIES than the base and worthless imitations of them, as there are False Resolvents, Reliefs and Pills. Be sure and ask for Radway's, and see that the name "Radway" is on what you buy.

YOUNG MEN Learn Telegraphy! Earn $40 to $100 a month. Graduates guaranteed paying offices. Address VALENTINE BROS., Janesville, Wisconsin.

EMPLOYMENT—LOCAL OR Traveling. [illegible] Also SALARY per month. All EXPENSES advanced. WAGES promptly paid. SLOAN & Co. 306 George St. Cincinnati, O.

SEWING MACHINE NEEDLES—Six for 25 cents [illegible] JAMES W. O'NEILL, [illegible] Mass.

HOP BITTERS.

(A Medicine, not a Drink.)

CONTAINS

HOPS, BUCHU, MANDRAKE, DANDELION,

AND THE PUREST AND BEST MEDICAL QUALITIES OF ALL OTHER BITTERS.

THEY CURE

All Diseases of the Stomach, Bowels, Blood, Liver, Kidneys, and Urinary Organs, Nervousness, Sleeplessness and especially Female Complaints.

$1000 IN GOLD.

Will be paid for a case they will not cure or help, or for anything impure or injurious found in them.

Ask your druggist for Hop Bitters and try them before you sleep. Take no other.

D. I. C. is an absolute and irresistible cure for Drunkenness, use of opium, tobacco and narcotics.

SEND FOR CIRCULAR.

All above sold by druggists.

Hop Bitters Mfg. Co., Rochester, N. Y. & Toronto, Ont.

KIDNEY DISEASES, CONSTIPATION AND PILES.

are quickly and surely cured by the use of KIDNEY-WORT. This new and wonderful remedy which is having such an immense sale in all parts of the country, works on natural principles. It restores strength and tone to the diseased organs, and through them cleanses the system of accumulated and poisonous humors. Kidney diseases of thirty years standing have been cured, also Piles, Constipation, Rheumatism, &c., which have distressed the victims for years. We have volumes of testimony of its wonderful curative power. No longer use Alcholic Bitters, which do more harm than good, or drastic pills, but use nature's remedy, KIDNEY-WORT, and health will be quickly regained. Get it of your Druggist. Price, $1. (Will send post paid.) WELLS, RICHARDSON & CO., Prop's, Burlington, Vt.