

only insisted that the artist should come back the following day. She wanted him to set to work on the instant, so great was her longing to see the masterpiece erected. The sculptor, however, remarked that he had another work to finish first. The difficulty she sought to overcome by means of money.

"Impossible," replied the artist. "I have given my word; do not distress yourself; I will apply to it so diligently that the monument shall be finished in as short a time as any other sculptor would require who could apply himself to it forthwith."

"You see my distress," said the widow; "you can make allowance for my impatience. Be speedy, then, and above all, be lavish in magnificence. Spare no expense; only let me have a masterpiece."

Several letters uttered these injunctions during the interview. At the expiration of three months the artist called again. He found the widow still in her weeds, but a little less pallid; and a little more coquettishly dressed in her mourning garb.

"Madam," said he, "I am entirely at your service."

"Ah, at last; that is fortunate," replied the widow, with a gracious smile.

"I have made my design," said the artist; "but I still want one sitting for the likeness. Will you permit me to go into your bedroom?"

"Into my bedroom? For what?"

"To look at the portrait again."

"Oh, yes; have the goodness to walk into the drawing-room; you will find it there now."

"Ah?" said the artist, surveying the picture.

"Yes; it hangs better there," observed the widow. "It is better lighted in the drawing-room than in my room."

"Would you like, madam, to look at the design for the monument?"

"With pleasure," replied the widow. "Oh, what a size, what profusion of decoration. Why, it is a palace, sir, this tomb!"

"Did you not tell me, madam, that nothing could be too magnificent?" I have not considered the expense; and, by the way, here is a memorandum of what the monument will cost you."

"O sculptor!" exclaimed the widow, after having cast an eye over the total adding up; "why, this is enormous!"

"You begged me to spare no expense," said the sculptor.

"Yes, no doubt; I desire to do things properly," replied the widow; "but not exactly to make a fool of myself."

"This at present, you see, is only a design," observed the artist; "and, yet time to cut it down."

"Well, then, suppose you were to leave out the temple, and the columns, and all the architectural part, and content ourselves with the statue? It seems to me that this would be appropriate."

"Certainly it would," replied the artist.

"So let it be then—just the statue alone."

Shortly after this second visit the sculptor fell desperately ill. He was compelled to give up the work; but on returning from a tour in Italy, prescribed by his physician, he presented himself once more before the widow, who was then in the tenth month of her mourning. He found this time a few roses among the cypresses, and some smiling colors playing over half shaded grounds. He brought with him a little model of his statue, done in plaster, and offering in miniature the idea of what his work was to be.

"What do you think of the likeness?" he inquired of the widow.

"It seems to me a little flattered; my husband was all very well, no doubt, but you are making him an Apollo."

"Really? well, then, I can correct my work by the portrait."

"Don't take the trouble," said the widow; "a little more or less like, what does it matter?"

"Excuse me, but I am very particular about likenesses."

"If you absolutely must—"

"It is in the drawing-room yonder; is it not?"

"It is not there any longer," replied the widow, ringing the bell. "Baptiste," she said to the servant who came in, "bring down the portrait of your master."

"The portrait that you sent up to the garret last week, madam?"

"Yes."

At this moment the door opened, and a young man of distinguished air entered; his manner was easy and familiar; he kissed the fair widow's hand, and tenderly inquired after her health.

"Who in the world is this good man in plaster?" asked he, pointing with his finger to the statue, which the artist had placed on the mantelpiece.

"It is the model of a statue for my husband's tomb," she replied.

"You are having a statue of him made?" This very majestic-looking man inquired.

"Do you think so?" said the widow.

"It is only great men who are thus cut out of marble, and at full length," replied the young man; "it seems to me, too, that the deceased was a very ordinary personage."

"Well, I think his bust would be sufficient," observed the widow.

"Not just as you please, madam," replied the sculptor.

"Well, let it be a bust, then," said the widow; "that's determined."

Two months later, the artist, carrying home the bust, encircled by the stairs a merry party. The widow, giving her hand to the elegant dandy who had caused the statue of the deceased to be cut down, was on her way to the mayor's office, where she was about to take a second oath of conjugal fidelity. If the bust had not been completed, it would, willingly have been dispensed with. When, some time later, the artist called for his money, there was an outcry about the price; and it required very little less than a threat of legal proceedings before the widow, consoled and re-married, concluded by resigning herself to pay the funeral homage, reduced as it was, to the memory of her departed husband.

SCIENTIFIC

SCIENCE IN THE KITCHEN.

The student of the social economy of this country will encounter the more remarkable anomaly in the habits of our people than that while we exhaust every possibility offered by the progress of modern science toward the augmenting of our pecuniary welfare, we as tactlessly neglect the teachings derived from the same sources and pointing to one of the most important causes of physical health and comfort. When a man undertakes to build himself a house, it is the general rule that he exercises the closest care that every portion of the structure shall be, in design and material, the best. He employs a capable architect, a thorough builder, selects stone, brick, mortar and other components of his fabric with a rigid scrutiny which leaves no doubt in his mind but that his dwelling will be a strong and lasting shelter. Then he decorates, furnishes, searches for ingenious devices of household convenience, and finally enters his new habitation secure in his belief of its excellence. Is it not strange that all his labor is done for a roof which may cover its owner but until tomorrow, for a home which the vicissitudes of fortune may wrest from him in a day, or which of his own choice he may abandon, before the mortar is perfectly dry; while to the structure in which Providence has ordained he shall exist for a lifetime, but secondary consideration is given?

Our food has been compared to the fuel which heats a boiler, makes steam, and so drives the machinery. The simile is not only true but unjust. The substances that we eat play even a greater part. It is as if the fuel, besides heating the water, contributed by its combustion to the existence of the boiler—in other words, we are made of the materials we consume. Clearly, then, although we may subsist for a time on substances unsuitable and comparatively non-nutritious, in the end our physical system will suffer, if not break down, from the improper nature of the components with which it is supplied.

Cooking is the proper preparation of food for human consumption. We do not consider that the term means applying heat until the substances assumes any form which is edible, but the causing of the material to undergo certain changes, chemical or otherwise, in its condition, which render it in the most suitable state for the nourishment of the body. Articles for the table, then, are either cooked or ruined—necessarily one or the other. Bad cooking, like bad grammar, is non-existent *ex vi termini*; but as to where the dividing line happens to be between the very opposite conditions, it is odd that few persons can agree. Perhaps it may be safely drawn from the sanitary point of view, as above noted; for a single material, like the common potato, for example, may be nutritious and healthy when properly cooked; while if it be boiled until its nature is lost. Theoretically, then, the gage of cookery should be the healthfulness of its results; practically, however, the standard is simply and purely one of individual taste; and that in this country, where the majority are educated to relish compounds indigestible and worthless as brain and muscle producers, is fallible in the extreme. Hence, while this sense is gratified, we give no thought to the means, in other words, so long as the builder of the fabric is satisfied with the exterior appearance of his stone, mortar, or brick, no matter, if when they are made into a wall, they prove bad within, and weak and insufficient at supports.

Dr. James, in an excellent paper recently read before the American Health Association, upon a topic kindred to that to which we are referring, points out with much clearness many of the abuses into which the preparation of our food has fallen, and inveighs with special vigor against the general assumption that women are natural cooks. Perhaps it is to the invariable inaccuracy which (our feminine readers will pardon us) is inherent to the gentler sex, more than to any other cause, that the science of cookery has descended to the level of a rule of thumb pursuit. Do we ever need a medicine, we watch the druggist, that he compounds it with scrupulous exactitude. Do we build a machine, we hire talent that will execute the work to a hair breadth accuracy; in fact, we employ skilled labor to supply us with knowledge, to house us, to dress us, and even to shave us, everything but to feed us. It takes an artist to make our coats; but the most foolish of Hibernian virgins may be installed in our kitchen to prepare the food that makes our body.

If cookery were reduced down to rule, so that a person could follow recipes with the same certainty of success, due to accuracy, with which the student pursues the instructions laid down in his text book of chemical analysis, it is probable that any individual could produce eatables and healthy dishes, but nothing further from the truth. Let the reader ask any successful cook how he or she makes such or such a compound, the chances are strongly that no satisfactory explanation can be given. "Practice" is probably stated as the reason, or "experience," or "luck." Let him turn to any so-called cookery book, and we would be willing to wager that in nine cases out of ten the recipes for the most delicate cake and pastry contain greater margins of inaccuracy than any formula extant for mixing mud concrete. What does a teaspoonful mean, heaped up or level, with the rim? Or a teaspoonful? What size of teaspoon? How much is a pinch, or a handful, or a pennyworth? There is absolutely no standard system of measures conscientiously followed; and hence a woman will gage her ingredients by the grab with the same unquestioning faith in the accuracy of the combination that she proposes in the fact that the distance from the tip of her nose to the end of her fingers is precisely and infallibly one yard.

The practical solution of the important question, whether the masses can be educated properly to prepare their food, is yet to be determined. It is surely possible that cookery can be taught as a science, as other necessary branches of knowledge, not after the fashion of child's play, as have been most of the previous attempts in this direction; but as a serious study. We do not expect every man's wife to become a *conditio sine*, or our servants to prepare entrees which would not disgrace Delmonico; but we do believe that means might be found of imparting information sufficient to relieve the people of many of the nightmare-breeding tempounds of daily consumption. Make practical cookery a part of every woman's education, and the principles of the same a portion of that of every man. Let us, for recipes, have formulae and instructions, clearly couched, but as accurate as the physician's prescription, and deduced by scientific investigation. Then with the materials and means which we now have, better than which the world cannot produce, the answer to our petition for daily bread will not be food destructive to our health as individuals and as a people.

THE PIN MACHINE.

This machine is one of the closest approaches that mechanics have made to the dexterity of the human hand. It is about the height and size of a lady's sewing-machine, only much stronger. On the left side, at the back, a light belt descends from a long shaft in the ceiling that drives all the machines, ranged in rows on the floor. On the left side of the machine hangs on a peg a reel of wire that has been straightened by running through a compound system of small rollers. The wire descends, and the end enters the machine. This is the food consumed by this voracious little dwarf. He pulls it in and bites it off by inches incessantly—one hundred and forty bites to the minute. Just as he seizes each bite, a little hammer, with a concave face, hits the end of the wire three times, "upsets" it to a head, while he grips it to a counter sunk hole between his teeth. With an outward thrust with his tongue, he then lays the pin sideways in a little groove across the rim of a small wheel that slowly revolves. By the external pressure of a stationary hoop these pins roll in their places as they are carried under two series of small files, three in each. These files grow finer toward the end of the series. They lie at a slight inclination on the pins, and a series of cams, levers and springs are made to play like lightning. Thus the pins are dropped in a little shower in a box. Twenty-eight pounds a day's work for one of these jerking little automatons. The machines reject crooked pins, the slightest irregularity in any of them being detected.

A SUBSTITUTE FOR COAL.

Among the anomalies of the fuel question, the most striking consists in the fact that the supply of petroleum from the Pennsylvania wells is now at a rate which has reduced its value to 1d. per gallon, and that yet no methods have been brought into general use to utilize this product, either for manufacturing or domestic purposes, so as to influence the price of coal. The present yield of the region is estimated at 30,000 barrels a day, and new discoveries are constantly made. An impression is becoming general that the existence of this fuel is as extensive as that of coal itself, and its utility is finding recognition in China and Japan, whither considerable shipments are now in progress.

HARDENING SMALL TOOLS.

According to J. Scheuzelder, watchmakers and engravers harden their tools in sealing wax. The article is made white-hot and thrust into sealing wax, allowed to remain a moment, then withdrawn and thrust into another place, and this treatment is continued until the steel is cold, and will no more enter the wax. The hardness thus attained is extreme, and comparable to that of the diamond; in fact, steel hardened in this way may be used for boring or engraving steel hardened by other processes.

the tool being previously moistened with oil of turpentine.

COAL SUPERCEDED—VAPOR FUEL.

A writer in the *Railroad Journal* is engaged in bringing into prominence a new heating agent, which is destined to prove a satisfactory substitute for coal in its every possible application. It is a gaseous or vapor fuel. The basis of it is petroleum, which is being produced in almost fabulous quantities in all of the oil-bearing districts of America. The remarks of the writer alluded to are well worthy of perusal, for if all the states be correct a revolution in the matter of supplying heat for all purposes to dwellings in towns and cities will soon be brought about. We quote as follows:

It is first converted into gas, and then intermixed with the requisite amount of air and steam under proper conditions, and this product conducted in pipes to the place of combustion, and thus ignited and burnt in suitably constructed furnaces.

As a steam fuel, coal, by comparison, with it, is nowhere, for its various advantages in this respect admit of no comparison. For reducing and refining ores, for working in iron, steel and metallurgy generally, its merits are infinitely superior to any other fuel.

From the total absence of sulphur and all other hurtful ingredients, Vapor Fuel produces from the poorest of ores, even a better than charcoal iron.

While the results obtained are so greatly superior, it is gratifying to know that the cost of this fuel is less than half that of coal, and the supply increasing and unlimited.

It is most fortunate that this great discovery has been perfected at this time, when the price of coal seems to be going up, and the supply of Petroleum is very abundant and cheap.

The great industries of the countries are in process of rapid development and change, especially in all those branches relating to iron and steel, and who knows or can predict what important results will be due to the discovery and application of "Vapor Fuel" to the various uses we have named. That it is destined to become a substitute for coal and to become also an important adjunct to metallurgy no one can doubt.

In this connection we may also state that Petroleum is also being used in many places to furnish illuminating gas, and the gentleman already referred to, connected with this office, informs us he has devised a method whereby Petroleum and other Hydrocarbons may be successfully utilized to furnish all the fuel and heat of towns and cities, for warming, cooking, &c., in the same manner that illuminating gas is now served out and used.

This is indeed a novel and momentous innovation, and one well worthy the attention of oil producers, as affording a new field for its use, and a profitable relief from the evils of an increasing and already overcrowded supply.

THE HOPE OF THE FUTURE.

The *Workingman's Advocate* of Chicago, has been publishing a series of articles upon the outlook for the ensuing winter from a labor standpoint, and under the above caption, refers to the "bow in the clouds" that relieves the darkness of the present time, and shows the means by which the laborer can attain the fruits of his toil. We are sure the article will be of interest to our readers.

An ounce of prevention is worth a pound of cure. With almost as much precision as we can count on the appearance of a new moon, the mercantile and industrial classes of the United States can tell when a so-called financial panic will pay a visit to our commercial centres, and thence to the industrial classes, on the same principle that a student can tell why effect follow cause, or why two and two makes four; and with the process of argument we feel satisfied the careful reader is already familiar. It is simply an arithmetical question, which any school-boy can solve.

How long can a manufacturer, merchant or farmer, who pays ten per cent for money, and whose average returns on the capital invested are but three per cent, afford to continue business? It is a matter of time and endurance, but the results are as inexorable as the decrees of fate. It may be compared to an hour-glass, which empties in twenty minutes at one end, what it requires sixty minutes at the other end to fill. The one process is always under the manipulation of the robber; the other under the supposed control of the victim.

For years past the mechanics and workingmen, through their representatives, have vainly endeavored to enlist the sympathy and cooperation of the agricultural element, to secure their demands for a recognition of labor's rights, or a redress of labor's wrongs. The efforts and misrepresentations of a partisan, subsidized press have unfortunately been more potent than the dictates of reason and common sense. It's a long lane, however, which has no turn. The seed sown is beginning to bear fruit. Monopoly has but one definition. Charity, honor, or even justice, are terms to which it is a stranger. All are fish which comes in to its net; but unfortunately for its own selfish purposes, it has overshot its mark, and secured for labor what labor, apparently, was unable to secure for itself. The farmers, who have suffered till forbearance has ceased, to be a virtue, are at length awakened to a realization of the fact, that the common enemy can only be defeated by a union of sentiment and action. Hence we find, on every hand, a disposition manifested to secure the influence, moral and political, of the mechanics—over-seers, which we are happy to say, have been met in the most fraternal spirit. To consummate this union—essential to the welfare of the Republic—should be the persistent aim of every labor reformer. The new element of strength to be secured by such an amalgamation is certainly worth an effort. From the latest and most reliable data furnished, we find the number of farmers' granges—that is, farmers' trades unions—in the several States, to be as follows:

Table listing the number of farmers' granges in various states: Alabama 177, Arkansas 74, California 104, Florida 14, Georgia 304, Illinois 704, Indiana 827, Iowa 825, Kansas 638, Kentucky 38, Louisiana 31, Massachusetts 10, Maine 1, Michigan 111, Minnesota 371, Missouri 985, Mississippi 434, Maryland 4, Nebraska 345, New Hampshire 7, New Jersey 13, New York 19, North Carolina 113, Ohio 184, Oregon 40, Pennsylvania 32, South Carolina 181, Tennessee 199, Texas 29, Vermont 28, Virginia 7, West Virginia 20, Wisconsin 232, Washington 5, Colorado 2, Dakota 25, Canada 8.

Total 7,810

Now, it is not claiming too much to say that these 7,810 granges represent a voting population of 500,000 souls. Already a large number of the most able and far-seeing of their leaders are beginning to realize that it is more essential to secure cheap money than cheap transportation; and there is no doubt that, by well directed effort, the co-operation of the farmers at large can be obtained in any future movement to secure this boon. The recent elections have opened the eyes of our lawmakers, especially as our western tillers of the soil have evidently determined to vote as they think. Under these circumstances it is with unfeigned pleasure we announce that, at the ensuing session of Congress, a bill, in consonance with the financial principles enunciated by the National Labor Union, will be introduced, and what is more, strenuously supported by many of the ablest statesmen of the country; and, although results may not verify our opinion, we honestly believe, if the proper steps are advisedly taken, if united action between the mechanical and agricultural elements is secured, (and we have reason to believe that it can and will be,) that their united demands will be heeded, the curse of the country—the National banking system—destroyed, and the issue of a currency directly to the people, based on the wealth and resources of the country, sufficient in volume to meet all legitimate business requirements, elastic and inextensible—a legal tender for all debts, public and private, inter-convertible, at the pleasure of the holder, into government bonds bearing 3.5 per cent interest, can be secured.

With the advent of this system, and the abolition of the gold-basis humbug, a new era will dawn on the history of our country, lock-ups and panics will be unknown, wealth will be more generally diffused, honest labor will be adequately rewarded, monopolies will be shorn of their power, and our country become a republic in fact as well as in name.

The Labor Market has undergone few changes during the past week. In the North the trade on the Tyne and Wear is dull, but shipbuilding on the Clyde is fairly brisk. Colliers are generally well engaged, and the report of the Cleveland ironstone miners being unsettled has received official contradiction. Advances of wages have in several quarters been refused, and if pressed a further depression of trade is likely to result. In consequence of the high price of coal and the raw materials in the iron trade, wooden shipbuilding has temporarily revived. New coal-fields are however being opened out in various directions. The Barnsley district and Lanarkshire may be specially mentioned in this connection. In the new ironstone district of Lincolnshire, works are still very active—and in the coal-fields of Lancashire labor is reported scarce. Under the head of emigration it may be observed that the Agricultural Labourers' Union have now declared in favour of an extensive removal of their members to the Colonies against the simpler process of migration within the United Kingdom, and both New Zealand and Queensland are likely to secure a large number of this class. Latest advices from Canada indicate that systematized emigration on a large scale is likely to take place to that colony in the spring.—Labor News.

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